Brandt 85210S

téléviseur format 4/3 nicam

Chassis ICC17
85 cm
Tube MP
Masque METAL
Procédé Black Matrix
Navilight
Son stéréo
NICAM 2 x 20 W
Télétexte intégré
Standard : PAL / SECAM
NTSC par péritélévision
Normes : PanEuro-LL'BGIDKK'

image
son
particularités
connectique / généralités

image

Tube 85 cm MP au format 4/3
Masque METAL
Procédé Black Matrix pour un meilleur contraste
S-VHS
Fonction zoom : permet d'adapter les émissions 4/3 au format 16/9 ème
Diagonale verrerie 85 cm
Diagonale image 80 cm
Standard : PAL / SECAM / NTSC par Vidéo
Normes : PanEuro-LL'BGIDKK'
Videotext / Fastext / Toptext : 6 pages

son

Son stéréo NICAM L/BG(DKK')/I
Puissance : 2 x 20 W musicaux
2 haut-parleurs medium
Effet spacial / pseudo
Limitation du volume sonore en mode hotel
Menu multi langues (14)

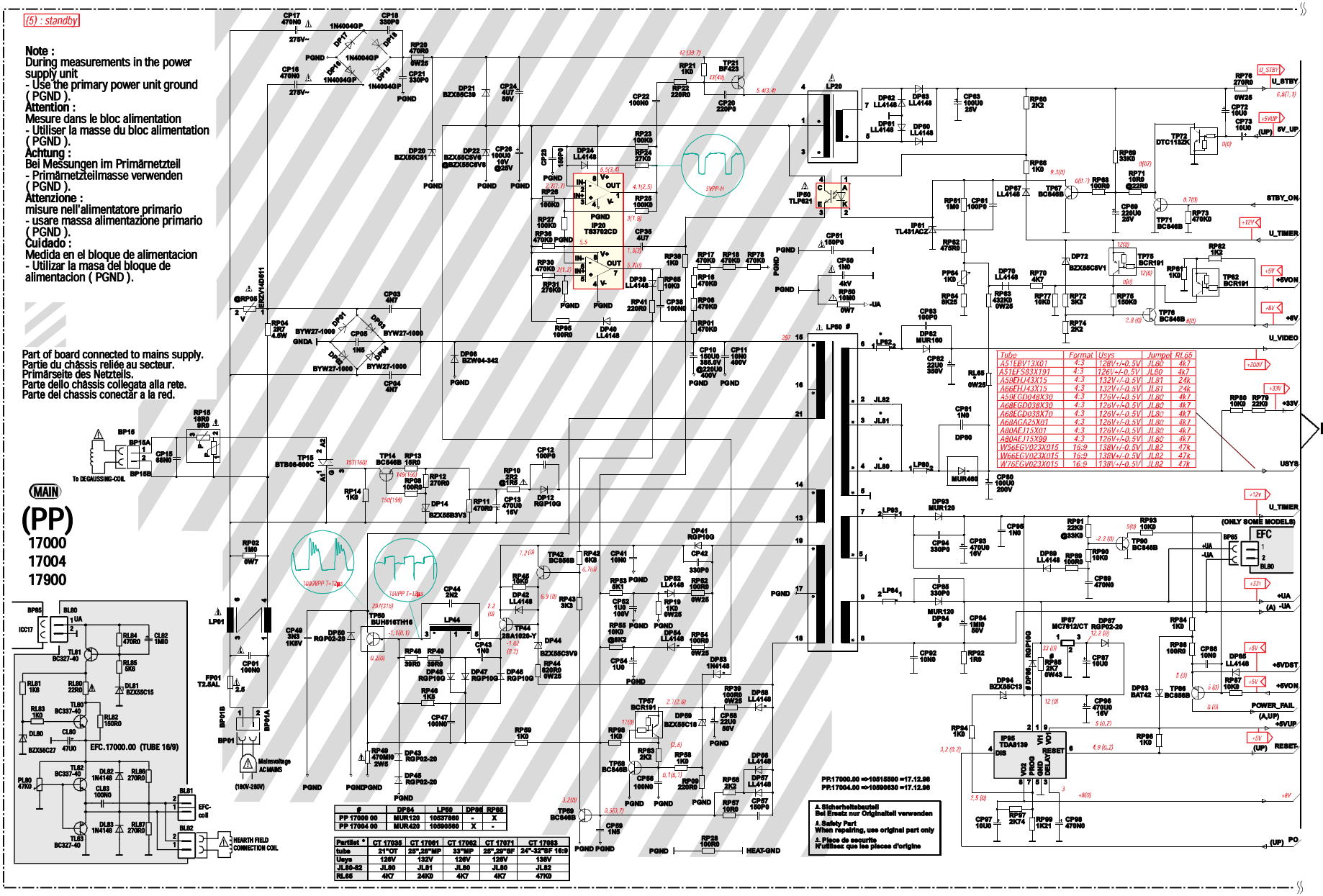
particularités

Mise en veille automatique en l'absence d'émission au bout de 5 mn
Verrouillage enfant
Affichage du numéro de programme
Système Navilight
99 programmes mémorisables + 3 programmes AV
Tuner à synthèse de fréquence
Compatible réseaux câblés
Hyperbande 8 MHz
Télécommande MB100

connectique / généralités

1 prise antenne
Façade ou côté : Prise casque (jack 3,5 mm)
2 prises AUDIO entrée /
1 prise CVBS entrée /
1 prise S-VIDEO entrée
Arriére : 2 PERITEL compatible S-VHS et HI-8
Alimentation : 180 - 265 V; 50 Hz
Consommation : 55 W/h - en veille 2 W/h
Poids : 21 kg
Dimensions (L x H x P) : 666 x 757 x 539 mm
Pied en option : STTH3350

POWER SUPPLY - ALIMENTATION - NETZTEIL - ALIMENTAZIONE - ALIMENTACIÓN

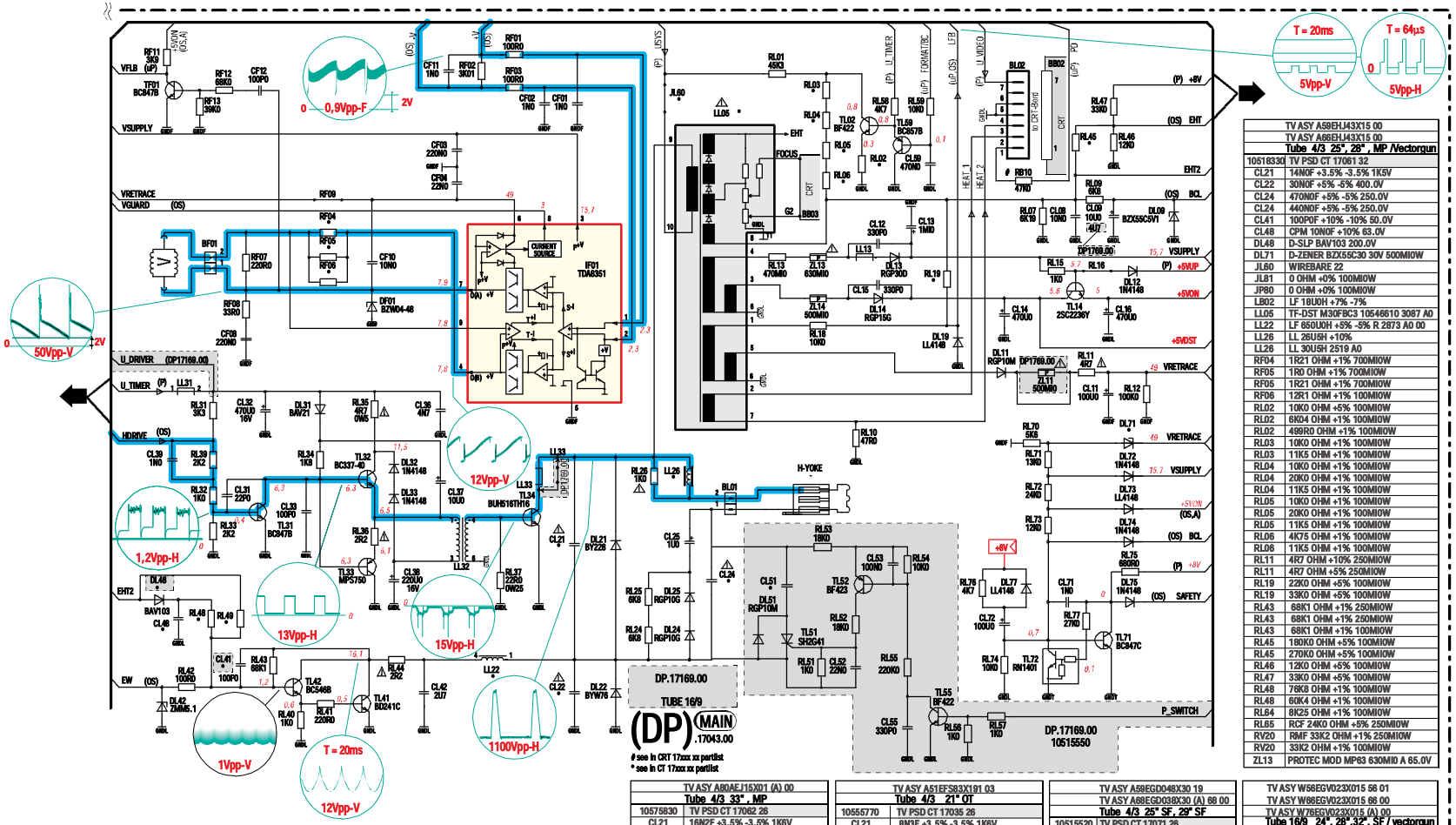


Tube	Format	Usys	Jumper	RL65
A51EBV13X01	4:3	128V+/-0.5V	JL80	4k7
A51EKS83X191	4:3	126V+/-0.5V	JL80	4k7
A59EHJ43X15	4:3	132V+/-0.5V	JL81	24k
A66EHJ43X15	4:3	132V+/-0.5V	JL81	24k
A59EGD048X30	4:3	126V+/-0.5V	JL80	4k7
A68EGD038X30	4:3	126V+/-0.5V	JL80	4k7
A68EGD038X70	4:3	126V+/-0.5V	JL80	4k7
A68AGA29X01	4:3	126V+/-0.5V	JL80	4k7
A80AEJ15X01	4:3	126V+/-0.5V	JL80	4k7
A80AEJ15X99	4:3	126V+/-0.5V	JL80	4k7
W56EGV023X015	16:9	138V+/-0.5V	JL82	47k
W66ECV023X015	16:9	138V+/-0.5V	JL82	47k
W7GEGV023X015	16:9	138V+/-0.5V	JL82	47k

#	DP54	LP59	DP56	RP65
PP 17000 00	MUR120	10537660	-	X
PP 17004 00	MUR420	10590660	X	-

Partilet °	CT 17036	CT 17061	CT 17062	CT 17071	CT 17083
tube	21"OT	25",28"MP	33"MP	25",29"SF	24"-32"SF 16:9
Usys	126V	132V	126V	126V	136V
JL80-82	JL80	JL81	JL80	JL80	JL82
RL65	4K7	24K0	4K7	4K7	47K0

SCANNING - BALAYAGE - ABLENKUNG - BARRIDO - SCANSIONE



TV ASY A59EHJ43X15 00 / TV ASY A66EHJ43X15 00 / Tube 4/3 25", 28" , MP /Vectorgun	
10518330	TV PSD CT 17061 32
CL21	14N0F +3.5% -3.5% 1K5V
CL22	30N0F +5% -5% 400.0V
CL24	470N0F +5% -5% 250.0V
CL24	440N0F +5% -5% 250.0V
CL41	100P0F +10% -10% 50.0V
CL48	CPM 10N0F +10% 63.0V
DL48	D-SLP BAV103 200.0V
DL71	D-ZENER BZX55C30 30V 500MI0W
JL60	WIREBARE 22
JL81	0 OHM +0% 100MI0W
JP80	0 OHM +0% 100MI0W
LB02	LF 18U0H +7% -7%
LL05	TF-DST M30FBC3 10546610 3087 A0
LL22	LF 650U0H +5% -5% R 2873 A0 00
LL26	LL 26U5H +10%
LL26	LL 30U5H 2519 A0
RF04	1R21 OHM +1% 700MI0W
RF05	1R0 OHM +1% 700MI0W
RF05	1R21 OHM +1% 700MI0W
RF06	12R1 OHM +1% 100MI0W
RL02	10K0 OHM +5% 100MI0W
RL02	6K04 OHM +1% 100MI0W
RL02	499R0 OHM +1% 100MI0W
RL03	10K0 OHM +1% 100MI0W
RL03	11K5 OHM +1% 100MI0W
RL04	10K0 OHM +1% 100MI0W
RL04	20K0 OHM +1% 100MI0W
RL04	11K5 OHM +1% 100MI0W
RL05	10K0 OHM +1% 100MI0W
RL05	20K0 OHM +1% 100MI0W
RL05	11K5 OHM +1% 100MI0W
RL06	4K75 OHM +1% 100MI0W
RL06	11K5 OHM +1% 100MI0W
RL11	4R7 OHM +10% 250MI0W
RL11	4R7 OHM +5% 250MI0W
RL19	22K0 OHM +5% 100MI0W
RL19	33K0 OHM +5% 100MI0W
RL43	68K1 OHM +1% 250MI0W
RL43	68K1 OHM +1% 250MI0W
RL43	68K1 OHM +1% 100MI0W
RL45	180K0 OHM +5% 100MI0W
RL45	270K0 OHM +5% 100MI0W
RL46	12K0 OHM +5% 100MI0W
RL47	33K0 OHM +5% 100MI0W
RL48	76K8 OHM +1% 100MI0W
RL48	60K4 OHM +1% 100MI0W
RL64	8K25 OHM +1% 100MI0W
RL65	RCF 24K0 OHM +5% 250MI0W
RV20	RMF 33K2 OHM +1% 250MI0W
RV20	33K2 OHM +1% 100MI0W
ZL13	PROTEC MOD MP63 630MI0 A 65.0V

TV ASY A80AEJ15X01 (A) 00 / Tube 4/3 33" , MP	
10575830	TV PSD CT 17062 26
CL21	16N2F +3.5% -3.5% 1K6V
CL22	30N0F +5% -5% 400.0V
CL24	560N0F +5% -5% 250.0V
CL41	100P0F +10% -10% 50.0V
CL48	10N0F +10% 63.0V
DL48	D-SLP BAV103 200.0V
DL71	D-ZENER BZX55C30 30V 500MI0W
JL60	WIREBARE 22
JL80	0 OHM +0% 100MI0W
LB02	LF 32U0H +4% -4%
LL05	TF-DST TDS29 TBD 11
LL22	LF 650U0H +5% -5% R 2873 A0 00
LL26	LL 26U5H +10%
RF05	1R21 OHM +1% 700MI0W
RF06	10R0 OHM +1% 100MI0W
RL02	6K04 OHM +1% 100MI0W
RL03	4K75 OHM +1% 100MI0W
RL04	4K75 OHM +1% 100MI0W
RL05	4K75 OHM +1% 100MI0W
RL06	6K81 OHM +1% 100MI0W
RL19	13K0 OHM +5% 100MI0W
RL45	150K0 OHM +5% 100MI0W
RL48	76K8 OHM +1% 100MI0W
RL49	560K0 OHM +5% 100MI0W
RL65	RCF 4K7 OHM +5% 250MI0W
RV20	RMF 23K7 OHM +1% 250MI0W

TV ASY A51EFS83X191 03 / Tube 4/3 21" OT	
10555770	TV PSD CT 17035 26
CL21	8N3F +3.5% -3.5% 1K6V
CL22	33N0F +5% -5% 1K0V
CL24	440N0F +5% -5% 250.0V
CL41	1N0F +10% -10% 50.0V
DL71	D-ZENER BZX55C24 24V 500MI0W
JL60	WIREBARE 22
JL80	0 OHM +0% 100MI0W
LB02	LF 18U0H +7% -7%
LL05	TF-DST M30FBC3 10555640 3087 A0
LL22	LF 650U0H +5% -5% R 2873 A0 00
LL26	LL 85U0H 2519 A0
RF05	1R5 OHM +1% 700MI0W
RF06	10R0 OHM +1% 100MI0W
RL02	6K04 OHM +1% 100MI0W
RL03	10K0 OHM +1% 100MI0W
RL04	10K0 OHM +1% 100MI0W
RL05	10K0 OHM +1% 100MI0W
RL06	3K32 OHM +1% 100MI0W
RL45	110K0 OHM +5% 100MI0W
RL49	60K4 OHM +1% 100MI0W
RL65	4K7 OHM +5% 250MI0W
RV20	23K7 OHM +1% 250MI0W

TV ASY A59EGD048X30 19 / TV ASY A68EGD030X30 (A) 68 00 / Tube 4/3 25" SF, 29" SF	
10515520	TV PSD CT 17071 26
CL21	16N2F +3.5% -3.5% 1K6V
CL22	30N0F +5% -5% 400.0V
CL24	510N0F +5% -5% 250.0V
CL41	100P0F +10% -10% 50.0V
CL48	10N0F +10% 63.0V
DL48	D-SLP BAV103 200.0V
DL71	D-ZENER BZX55C30 30V 500MI0W
JL60	WIREBARE 22
JL80	0 OHM +0% 100MI0W
LB02	LF 32U0H +4% -4%
LL05	TF-DST TDS29 TBD 13
LL22	LF 650U0H +5% -5%
LL26	LL 26U5H +10%
RF05	RMF 1R0 OHM +1% 700MI0W
RL02	6K8 OHM +5% 100MI0W
RL03	4K75 OHM +1% 100MI0W
RL04	4K75 OHM +1% 100MI0W
RL05	4K75 OHM +1% 100MI0W
RL06	4K75 OHM +1% 100MI0W
RL19	15K0 OHM +5% 100MI0W
RL45	180K0 OHM +5% 100MI0W
RL48	100K0 OHM +5% 100MI0W
RL49	300K0 OHM +5% 100MI0W
RL65	4K7 OHM +5% 250MI0W
RV20	33K2 OHM +1% 250MI0W

TV ASY W56EGV023X015 58 01 / TV ASY W68EGV023X015 68 00 / TV ASY W78EGV023X015 (A) 00 / Tube 16/9 24", 28", 32", SF / vectorgun	
10515530	TV PSD CT 17083 38
CL21	15N5F +3.5% -3.5% 1K6V
CL22	27N0F +5% -5% 400.0V
CL24	440N0F +5% -5% 250.0V
CL41	100P0F +10% -10% 50.0V
CL48	100N0F +5% 63.0V
CL51	290N0F +5% -5% 250.0V
DL48	D-SLP BAV103 200.0V
DL71	D-ZENER BZX55C24 24V 500MI0W
JL60	WIREBARE 22
JL82	0 OHM +0% 100MI0W
LB02	LF 32U0H +4% -4%
LL05	TF-DST TDS29 15314460 10
LL22	LF 650U0H +5% -5%
LL26	LL 30U5H 2519 A0
RF05	1R21 OHM +1% 700MI0W
RL02	4K99 OHM +1% 100MI0W
RL03	6K49 OHM +1% 100MI0W
RL04	6K49 OHM +1% 100MI0W
RL05	6K49 OHM +1% 100MI0W
RL06	2K37 OHM +1% 100MI0W
RL19	13K0 OHM +5% 100MI0W
RL45	390K0 OHM +5% 100MI0W
RL48	220K0 OHM +5% 100MI0W
RL49	180K0 OHM +5% 100MI0W
RL65	47K0 OHM +5% 250MI0W
RV20	100K0 OHM +1% 250MI0W

⚠ Indicates critical safety components, and identical components should be used for replacement. Only then can the operational safety be garanteed.

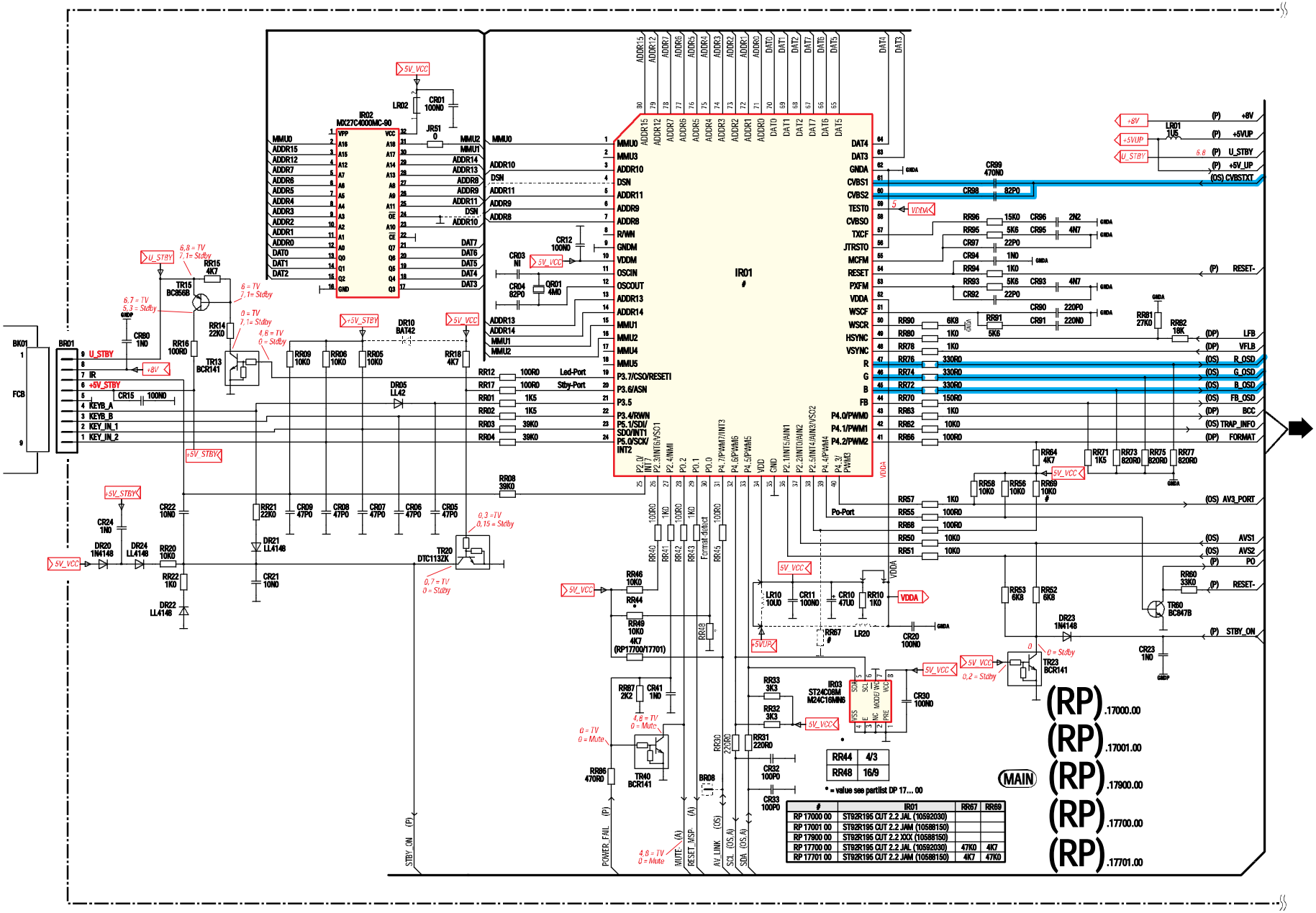
Le remplacement des éléments de sécurité (repérés avec le symbole ⚠) par des composants non homologués selon la Norme CEI 65 entraine la non-conformité de l'appareil.
Dans ce cas, la responsabilité du fabricant n'est plus engagée.

Wenn Sicherheitsteile (mit dem Symbol ⚠ gekennzeichnet) durch nicht normgerechte Teile ersetzt werden, erlischt die Haftung des Herstellers.

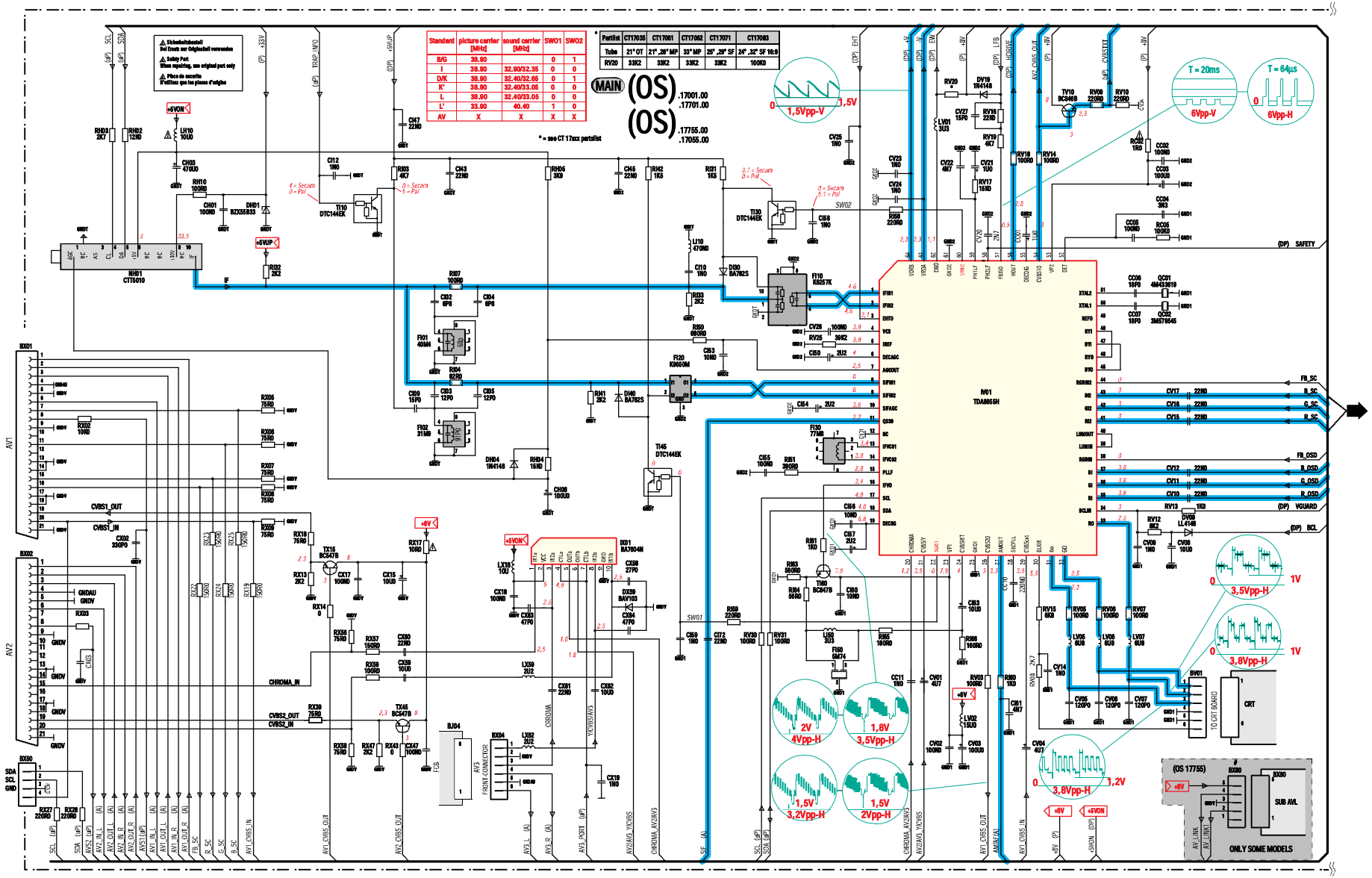
La sostituzione degli elementi di sicurezza (contrassegnati con il segno ⚠) con componenti non omologati secondo la norma CEI 65 comporta la non conformità dell'apparecchio.
In tal caso é "esclusa la responsabilità" del costruttore.

La subtitución de elementos de seguridad (marcados con el simbolo ⚠) por componentes no homologados segun la norma CEI 65, provoca la no conformidad del aparato.
En ese caso, el fabricante cesa de ser responsable.

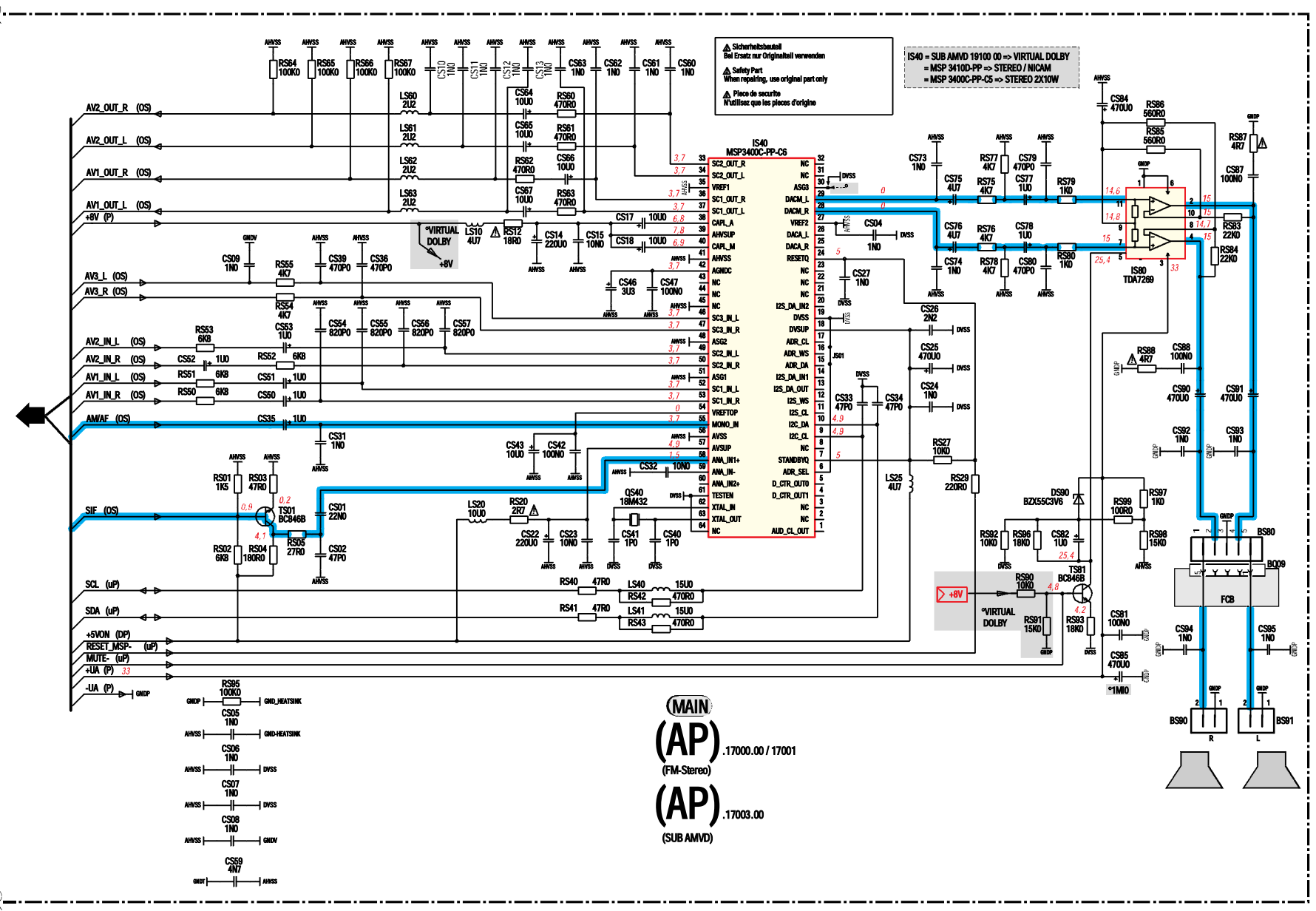
CONTROL MICROPROCESSOR - MICROPROCESSEUR DE COMMANDE - MIKROPROZESSOR - MICROPROCESSORE DEI COMANDI - MICROPROCESADOR DE LOS MANDOS



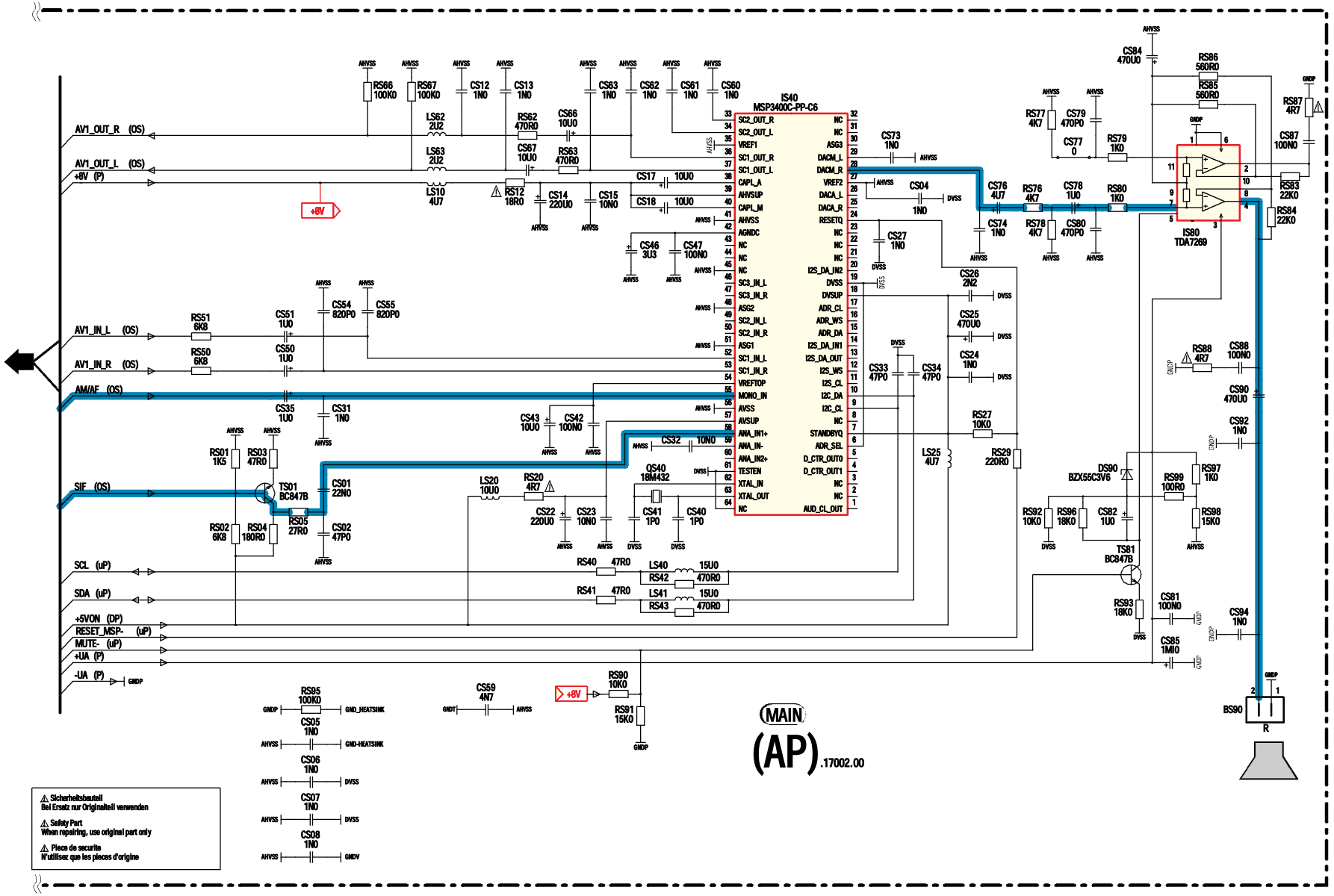
RF/FI/ SCART INTERFACE/VIDEO SIGNAL PROCESSING -HF/FI INTERFACE PERITELEVISION/TRAITEMENT LUMINANCE CHROMINANCE - HF/ZF/ SCART INTERFACE/VIDEO SIGNALVERARBEITUNG - RF/FI /PRESA PERITEL/ELABORAZIONE VIDEO - RF/FI /EUROCONECTOR / TRATAMENTO VIDEO

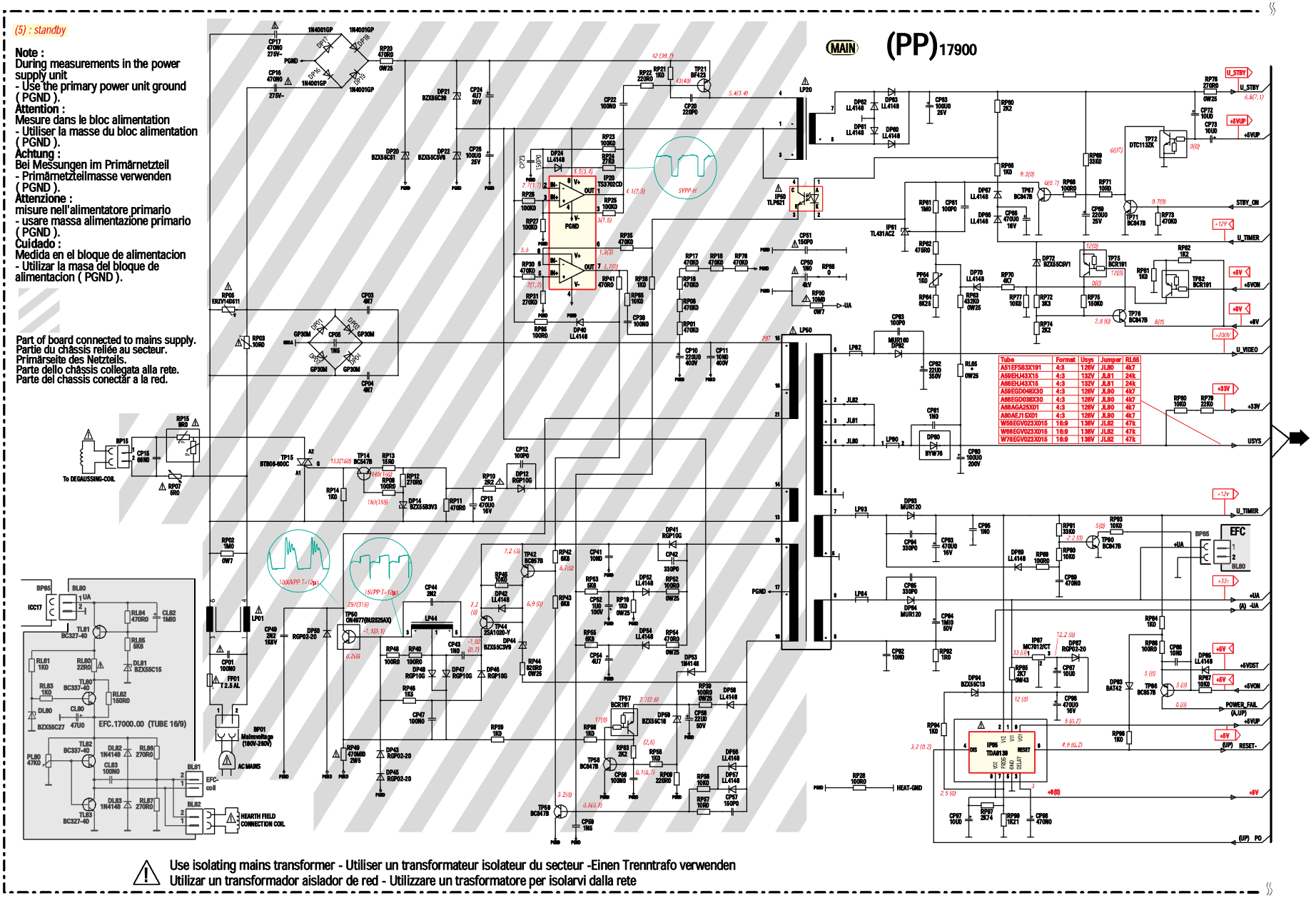


AMPLIFIER SCHEMATIC DIAGRAM - SCHEMA DE L'AMPLIFICATEUR - SCHALTBILD AUDIO-SIGNALVERABEITUNG - SCHEMA DELL' AMPLIFICATORE
ESQUEMA DEL AMPLIFICADOR
(STEREO)

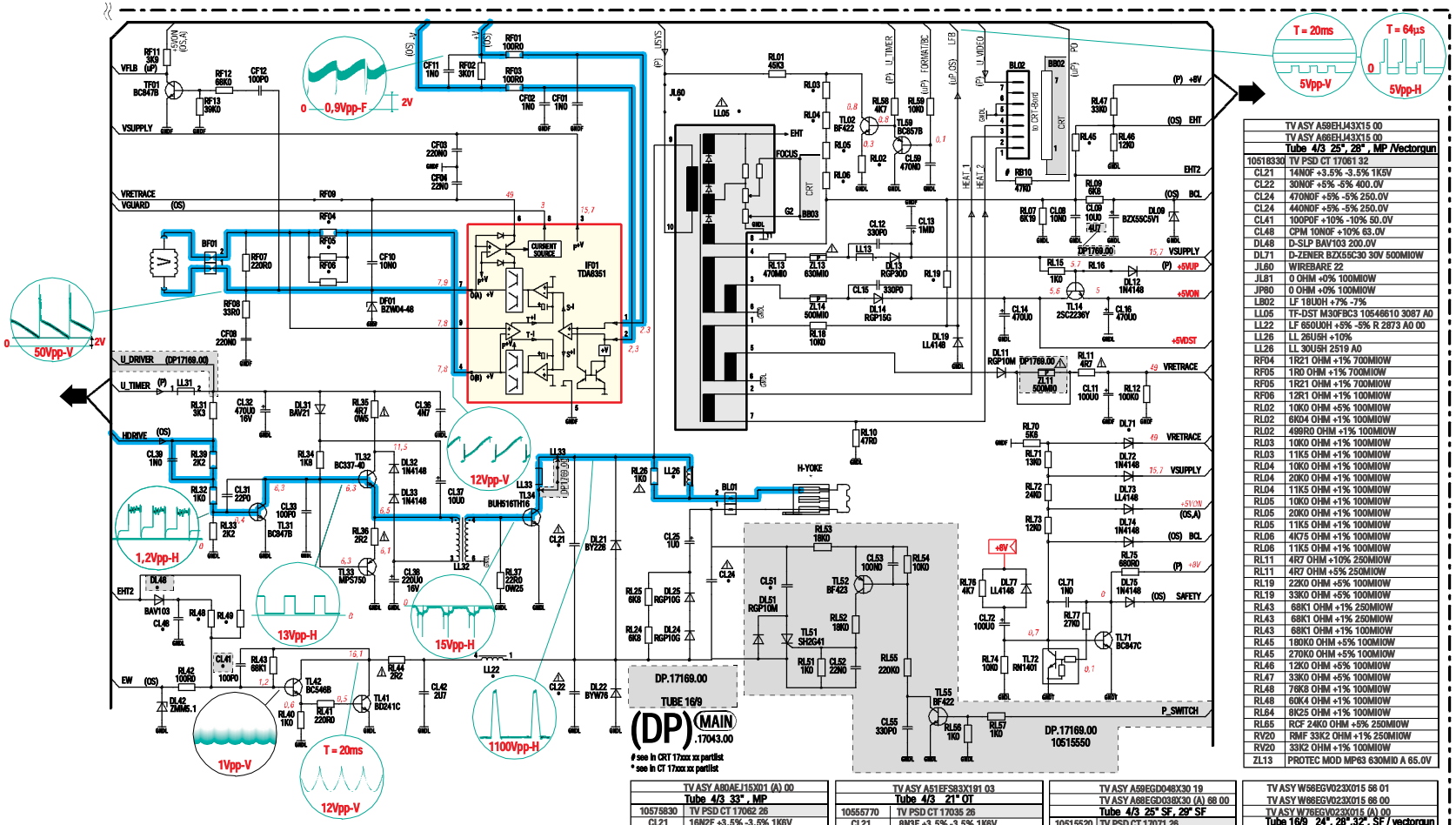


AMPLIFIER SCHEMATIC DIAGRAM - SCHEMA DE L'AMPLIFICATEUR - SCHALTBILD AUDIO-SIGNALVERABEITUNG - SCHEMA DELL' AMPLIFICATORE - ESQUEMA DEL AMPLIFICADOR
(MONO)




(5) : standby
Note :
During measurements in the power supply unit
- Use the primary power unit ground (PGND).
Attention :
Mesure dans le bloc alimentation
- Utiliser la masse du bloc alimentation (PGND).
Achtung :
Bei Messungen im Primärnetzteil
- Primärnetzteilmasse verwenden (PGND).
Attenzione :
misure nell'alimentatore primario
- usare massa alimentazione primario (PGND).
Cuidado :
Medida en el bloque de alimentacion
- Utilizar la masa del bloque de alimentacion (PGND).
Part of board connected to mains supply.
Partie du châssis reliée au secteur.
Primärseite des Netzteils.
Parte dello châssis collegata alla rete.
Parte del chassis conectär a la red.
MAIN
(PP)17900
EFC.17000.00 (TUBE 16/9)
To DEGAUSSING-COIL
AC MAINS
HEARTH FIELD CONNECTION COIL
Use isolating mains transformer - Utiliser un transformateur isolateur du secteur -Einen Trenntrafo verwenden
Utilizar un transformador aislador de red - Utilizzare un trasformatore per isolarvi dalla rete

SCANNING - BALAYAGE - ABLENKUNG - BARRIDO - SCANSIONE



TV ASY A59EHJ43X15 00 / TV ASY A66EHJ43X15 00 / Tube 4/3 25", 28" , MP /Vectorgun	
10518330	TV PSD CT 17061 32
CL21	14N0F +3.5% -3.5% 1K5V
CL22	30N0F +5% -5% 400.0V
CL24	470N0F +5% -5% 250.0V
CL24	440N0F +5% -5% 250.0V
CL41	100P0F +10% -10% 50.0V
CL48	CPM 10N0F +10% 63.0V
DL48	D-SLP BAV103 200.0V
DL71	D-ZENER BZX55C30 30V 500MI0W
JL60	WIREBARE 22
JL81	0 OHM +0% 100MI0W
JP80	0 OHM +0% 100MI0W
LB02	LF 18U0H +7% -7%
LL05	TF-DST M30FBC3 10546610 3087 A0
LL22	LF 650U0H +5% -5% R 2873 A0 00
LL26	LL 26U5H +10%
LL26	LL 30U5H 2519 A0
RF04	1R21 OHM +1% 700MI0W
RF05	1R0 OHM +1% 700MI0W
RF05	1R21 OHM +1% 700MI0W
RF06	12R1 OHM +1% 100MI0W
RL02	10K0 OHM +5% 100MI0W
RL02	6K04 OHM +1% 100MI0W
RL02	499R0 OHM +1% 100MI0W
RL03	10K0 OHM +1% 100MI0W
RL03	11K5 OHM +1% 100MI0W
RL04	10K0 OHM +1% 100MI0W
RL04	20K0 OHM +1% 100MI0W
RL04	11K5 OHM +1% 100MI0W
RL05	10K0 OHM +1% 100MI0W
RL05	20K0 OHM +1% 100MI0W
RL05	11K5 OHM +1% 100MI0W
RL06	4K75 OHM +1% 100MI0W
RL06	11K5 OHM +1% 100MI0W
RL11	4R7 OHM +10% 250MI0W
RL11	4R7 OHM +5% 250MI0W
RL19	22K0 OHM +5% 100MI0W
RL19	33K0 OHM +5% 100MI0W
RL43	68K1 OHM +1% 250MI0W
RL43	68K1 OHM +1% 250MI0W
RL43	68K1 OHM +1% 100MI0W
RL45	180K0 OHM +5% 100MI0W
RL45	270K0 OHM +5% 100MI0W
RL46	12K0 OHM +5% 100MI0W
RL47	33K0 OHM +5% 100MI0W
RL48	76K8 OHM +1% 100MI0W
RL48	60K4 OHM +1% 100MI0W
RL64	8K25 OHM +1% 100MI0W
RL65	RCF 24K0 OHM +5% 250MI0W
RV20	RMF 33K2 OHM +1% 250MI0W
RV20	33K2 OHM +1% 100MI0W
ZL13	PROTEC MOD MP63 630MI0 A 65.0V

TV ASY A80AEJ15X01 (A) 00 / Tube 4/3 33" , MP	
10575830	TV PSD CT 17062 26
CL21	16N2F +3.5% -3.5% 1K6V
CL22	30N0F +5% -5% 400.0V
CL24	560N0F +5% -5% 250.0V
CL41	100P0F +10% -10% 50.0V
CL48	10N0F +10% 63.0V
DL48	D-SLP BAV103 200.0V
DL71	D-ZENER BZX55C30 30V 500MI0W
JL60	WIREBARE 22
JL80	0 OHM +0% 100MI0W
LB02	LF 32U0H +4% -4%
LL05	TF-DST TDS29 TBD 11
LL22	LF 650U0H +5% -5% R 2873 A0 00
LL26	LL 26U5H +10%
RF05	1R21 OHM +1% 700MI0W
RF06	10R0 OHM +1% 100MI0W
RL02	6K04 OHM +1% 100MI0W
RL03	4K75 OHM +1% 100MI0W
RL04	4K75 OHM +1% 100MI0W
RL05	4K75 OHM +1% 100MI0W
RL06	6K81 OHM +1% 100MI0W
RL19	13K0 OHM +5% 100MI0W
RL45	150K0 OHM +5% 100MI0W
RL48	76K8 OHM +1% 100MI0W
RL49	560K0 OHM +5% 100MI0W
RL65	RCF 4K7 OHM +5% 250MI0W
RV20	RMF 23K7 OHM +1% 250MI0W

TV ASY A51EFS83X191 03 / Tube 4/3 21" OT	
10555770	TV PSD CT 17035 26
CL21	8N3F +3.5% -3.5% 1K6V
CL22	33N0F +5% -5% 1K0V
CL24	440N0F +5% -5% 250.0V
CL41	1N0F +10% -10% 50.0V
DL71	D-ZENER BZX55C24 24V 500MI0W
JL60	WIREBARE 22
JL80	0 OHM +0% 100MI0W
LB02	LF 18U0H +7% -7%
LL05	TF-DST M30FBC3 10555640 3087 A0
LL22	LF 650U0H +5% -5% R 2873 A0 00
LL26	LL 85U0H 2519 A0
RF05	1R5 OHM +1% 700MI0W
RF06	10R0 OHM +1% 100MI0W
RL02	6K04 OHM +1% 100MI0W
RL03	10K0 OHM +1% 100MI0W
RL04	10K0 OHM +1% 100MI0W
RL05	10K0 OHM +1% 100MI0W
RL06	3K32 OHM +1% 100MI0W
RL45	110K0 OHM +5% 100MI0W
RL49	60K4 OHM +1% 100MI0W
RL65	4K7 OHM +5% 250MI0W
RV20	23K7 OHM +1% 250MI0W

TV ASY A59EGD048X30 19 / TV ASY A68EGD030X30 (A) 68 00 / Tube 4/3 25" SF, 29" SF	
10515520	TV PSD CT 17071 26
CL21	16N2F +3.5% -3.5% 1K6V
CL22	30N0F +5% -5% 400.0V
CL24	510N0F +5% -5% 250.0V
CL41	100P0F +10% -10% 50.0V
CL48	10N0F +10% 63.0V
DL48	D-SLP BAV103 200.0V
DL71	D-ZENER BZX55C30 30V 500MI0W
JL60	WIREBARE 22
JL80	0 OHM +0% 100MI0W
LB02	LF 32U0H +4% -4%
LL05	TF-DST TDS29 TBD 13
LL22	LF 650U0H +5% -5%
LL26	LL 26U5H +10%
RF05	RMF 1R0 OHM +1% 700MI0W
RL02	6K8 OHM +5% 100MI0W
RL03	4K75 OHM +1% 100MI0W
RL04	4K75 OHM +1% 100MI0W
RL05	4K75 OHM +1% 100MI0W
RL06	4K75 OHM +1% 100MI0W
RL19	15K0 OHM +5% 100MI0W
RL45	180K0 OHM +5% 100MI0W
RL48	100K0 OHM +5% 100MI0W
RL49	300K0 OHM +5% 100MI0W
RL65	4K7 OHM +5% 250MI0W
RV20	33K2 OHM +1% 250MI0W

TV ASY W56EGV023X015 58 01 / TV ASY W68EGV023X015 68 00 / TV ASY W78EGV023X015 (A) 00 / Tube 16/9 24", 28", 32", SF / vectorgun	
10515530	TV PSD CT 17083 38
CL21	15N5F +3.5% -3.5% 1K6V
CL22	27N0F +5% -5% 400.0V
CL24	440N0F +5% -5% 250.0V
CL41	100P0F +10% -10% 50.0V
CL48	100N0F +5% 63.0V
CL51	290N0F +5% -5% 250.0V
DL48	D-SLP BAV103 200.0V
DL71	D-ZENER BZX55C24 24V 500MI0W
JL60	WIREBARE 22
JL82	0 OHM +0% 100MI0W
LB02	LF 32U0H +4% -4%
LL05	TF-DST TDS29 15314460 10
LL22	LF 650U0H +5% -5%
LL26	LL 30U5H 2519 A0
RF05	1R21 OHM +1% 700MI0W
RL02	4K99 OHM +1% 100MI0W
RL03	6K49 OHM +1% 100MI0W
RL04	6K49 OHM +1% 100MI0W
RL05	6K49 OHM +1% 100MI0W
RL06	2K37 OHM +1% 100MI0W
RL19	13K0 OHM +5% 100MI0W
RL45	390K0 OHM +5% 100MI0W
RL48	220K0 OHM +5% 100MI0W
RL49	180K0 OHM +5% 100MI0W
RL65	47K0 OHM +5% 250MI0W
RV20	100K0 OHM +1% 250MI0W

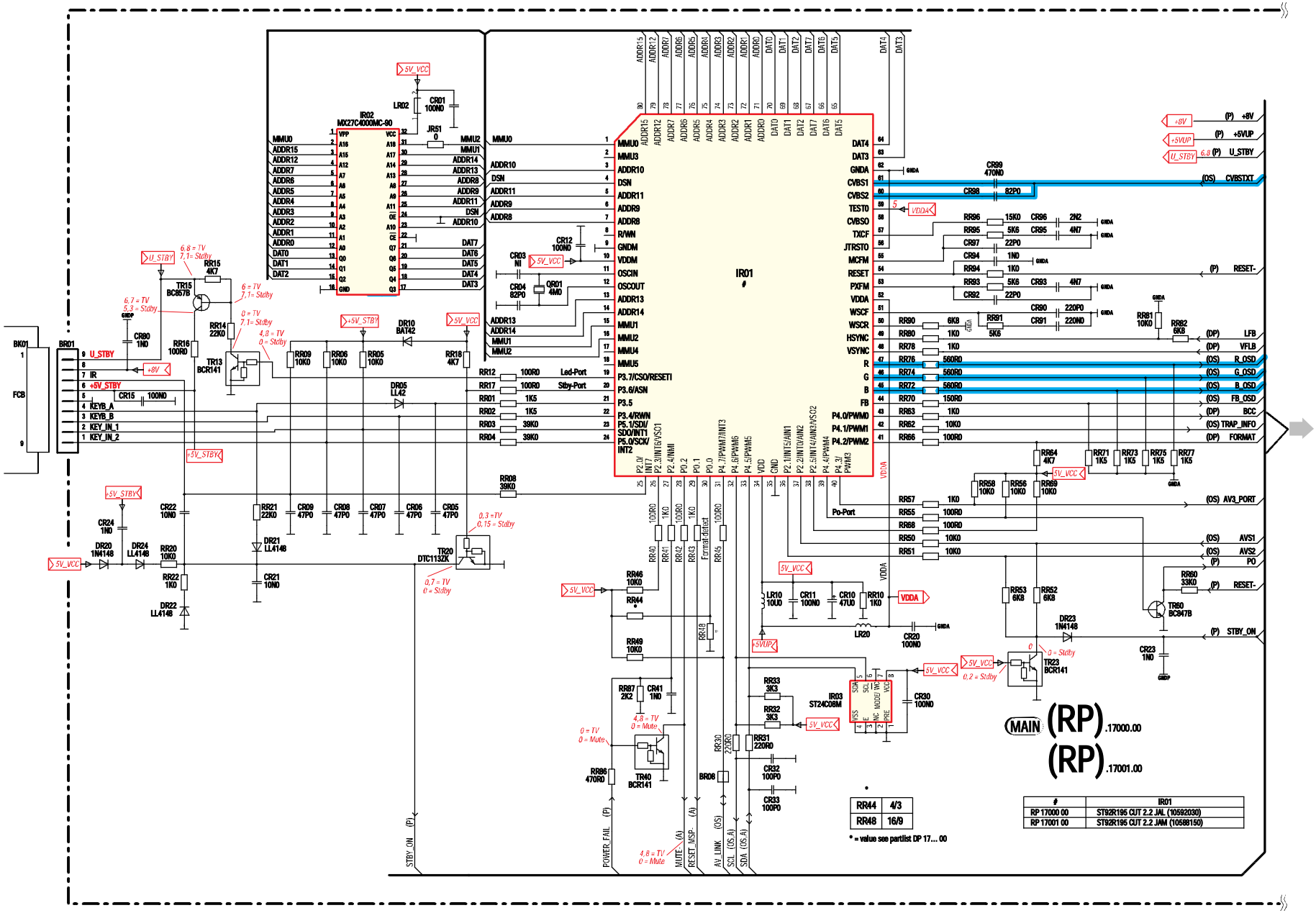
⚠ Indicates critical safety components, and identical components should be used for replacement. Only then can the operational safety be garanteed.

Le remplacement des éléments de sécurité (repérés avec le symbole ⚠) par des composants non homologués selon la Norme CEI 65 entraine la non-conformité de l'appareil.
Dans ce cas, la responsabilité du fabricant n'est plus engagée.

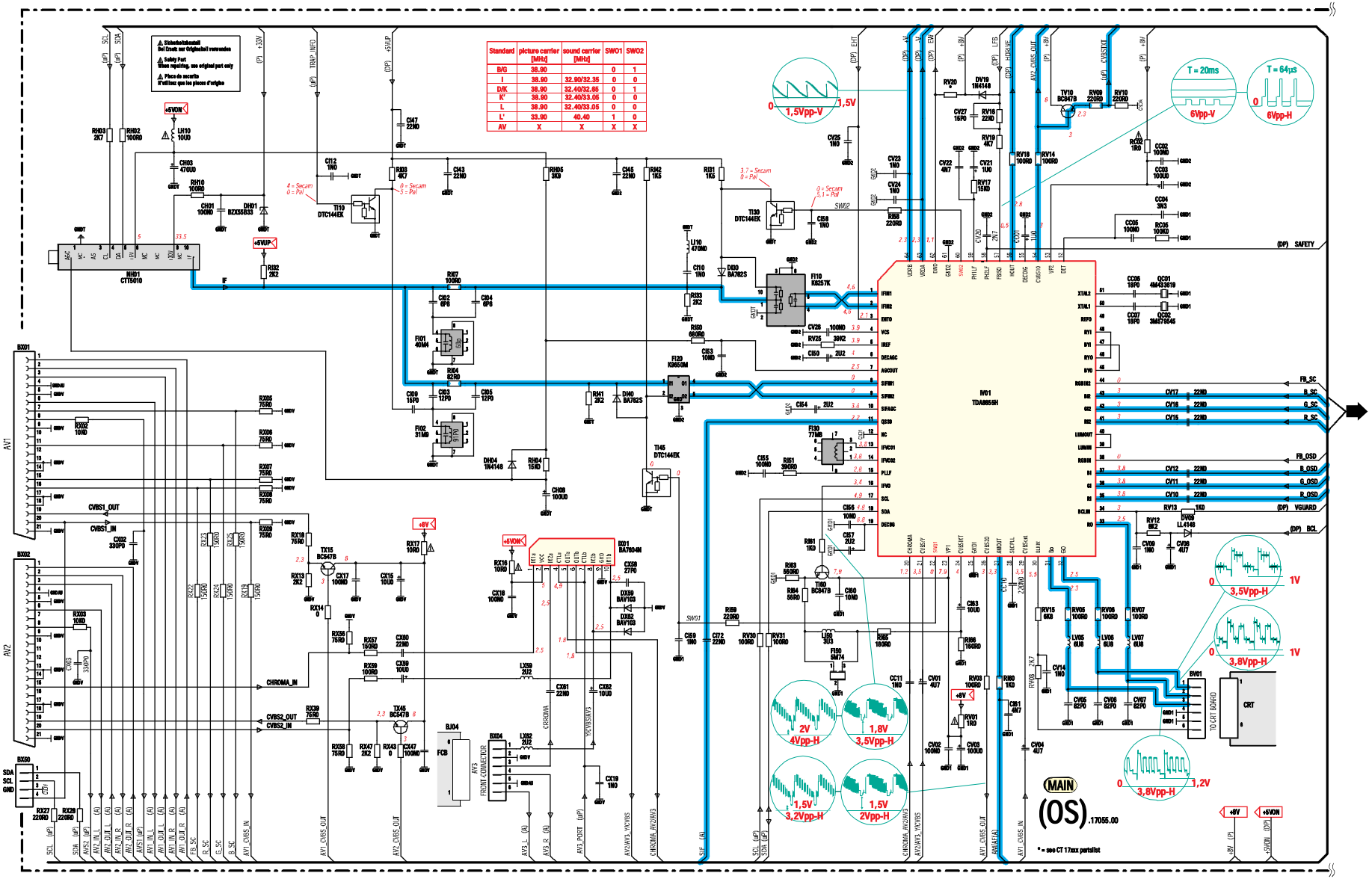
Wenn Sicherheitsteile (mit dem Symbol ⚠ gekennzeichnet) durch nicht normgerechte Teile ersetzt werden, erlischt die Haftung des Herstellers.

La sostituzione degli elementi di sicurezza (contrassegnati con il segno ⚠) con componenti non omologati secondo la norma CEI 65 comporta la non conformità dell'apparecchio.
In tal caso é "esclusa la responsabilità" del costruttore.

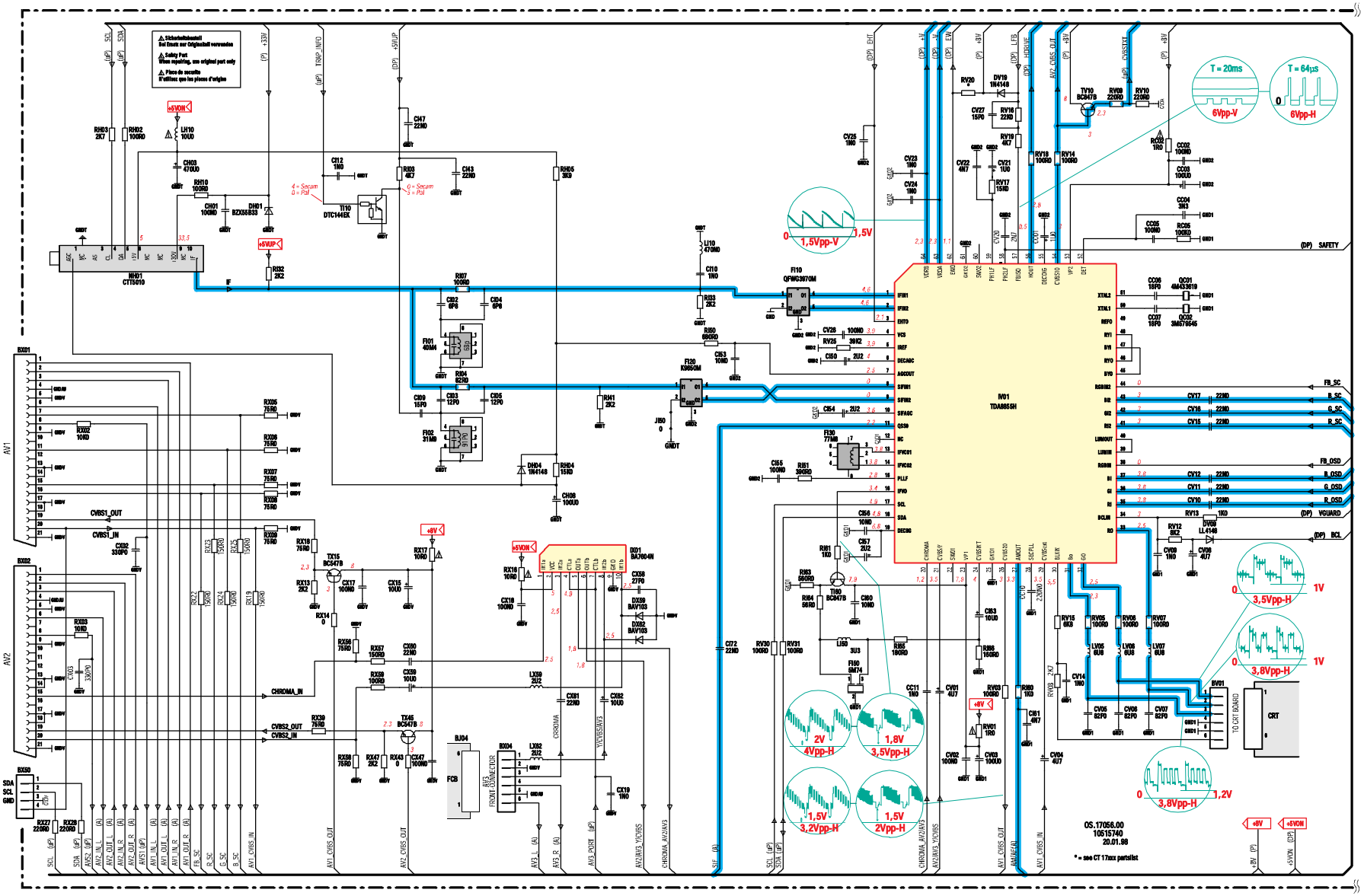
La subtitución de elementos de seguridad (marcados con el simbolo ⚠) por componentes no homologados segun la norma CEI 65, provoca la no conformidad del aparato.
En ese caso, el fabricante cesa de ser responsable.


IR01
IR02 MX27C4000MC-90
IR03 ST24C08M
BRD1
BK01
FCB
TR15 BC857B
TR13 BCR141
TR20 DTC113ZK
TR40 BCR141
TR60 BC847B
TR23 BCR141
Po-Port
Led-Port
Stby-Port
Format detect
MAIN (RP).17000.00
(RP).17001.00
RR44 4/3
RR48 16/9
* = value see partlist DP 17... 00
# IR01
RP 17000 00 ST92R195 CUT 2.2 JAL (10592030)
RP 17001 00 ST92R195 CUT 2.2 JAM (10588150)

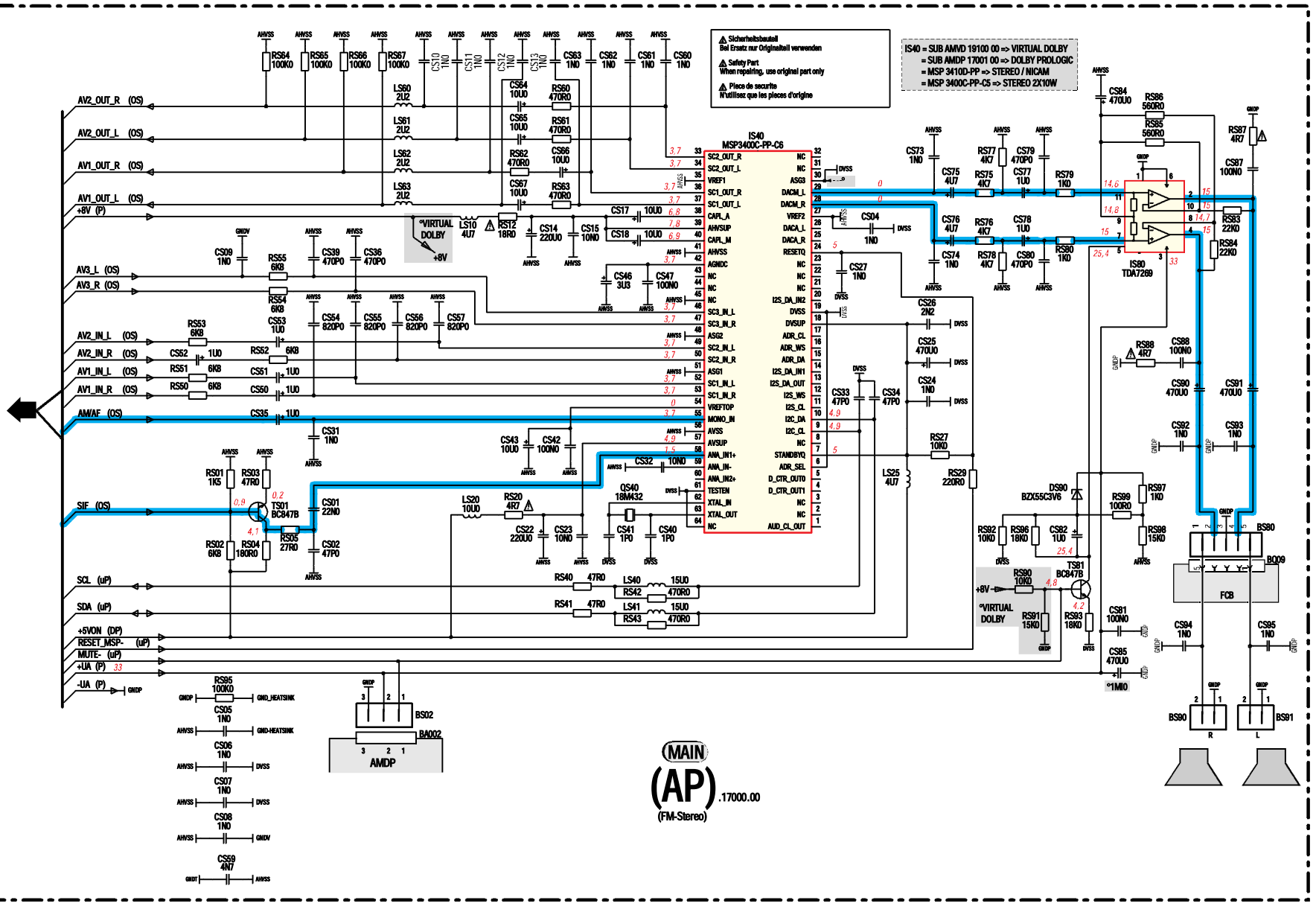
RF/FI/ SCART INTERFACE/VIDEO SIGNAL PROCESSING -HF/FI INTERFACE PERITELEVISION/TRAITEMENT LUMINANCE CHROMINANCE - HF/ZF/ SCART INTERFACE/VIDEO SIGNALVERARBEITUNG - RF/FI /PRESA PERITEL/ELABORAZIONE VIDEO - RF/FI /EUROCONECTOR / TRATAMENTO VIDEO



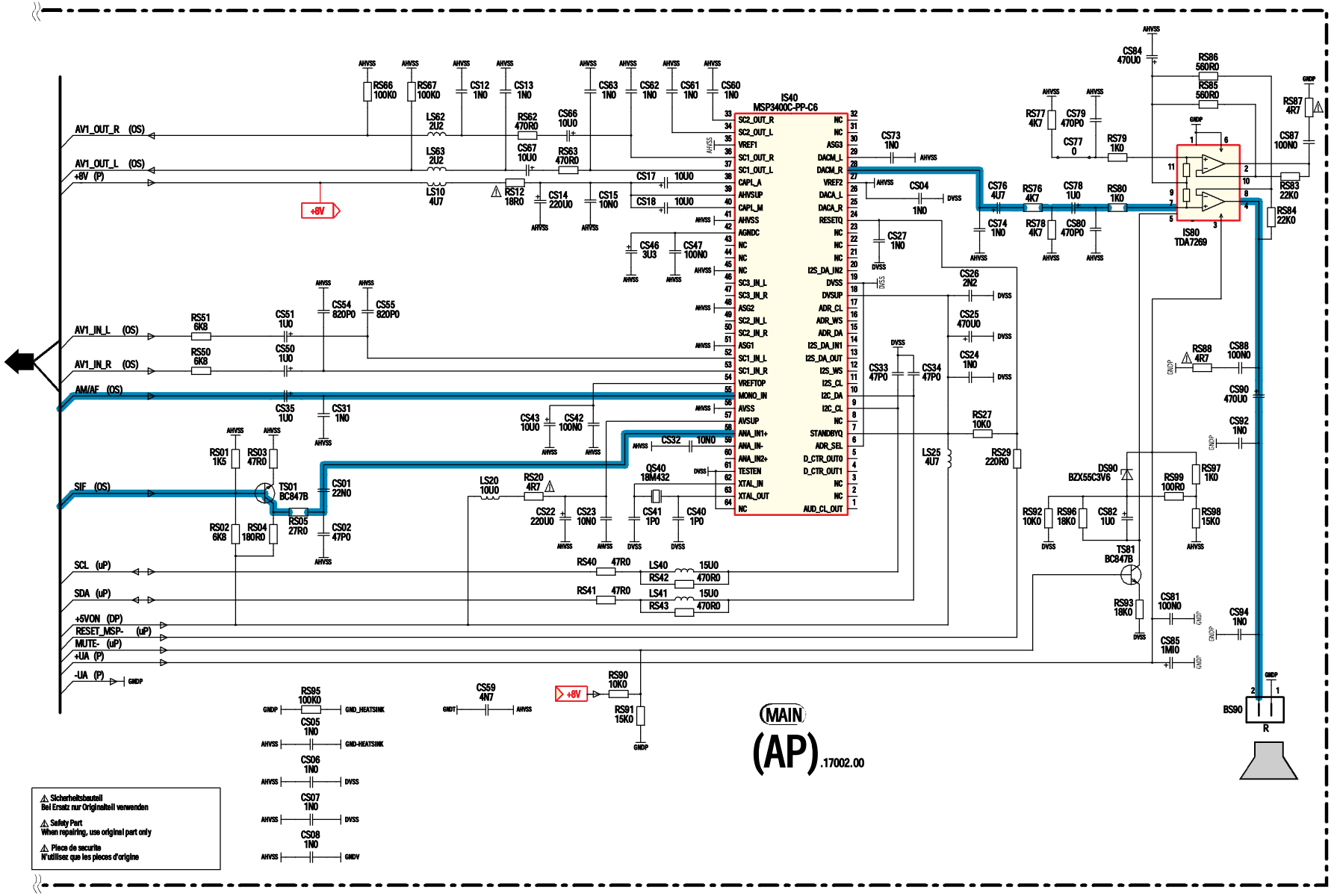
RF/FI/ SCART INTERFACE/VIDEO SIGNAL PROCESSING -HF/FI INTERFACE PERITELEVISION/TRAITEMENT LUMINANCE CHROMINANCE - HF/ZF/ SCART INTERFACE/VIDEO SIGNALVERARBEITUNG - RF/FI /PRESA PERITEL/ELABORAZIONE VIDEO - RF/FI /EUROCONECTOR/TRATAMENTO VIDEO



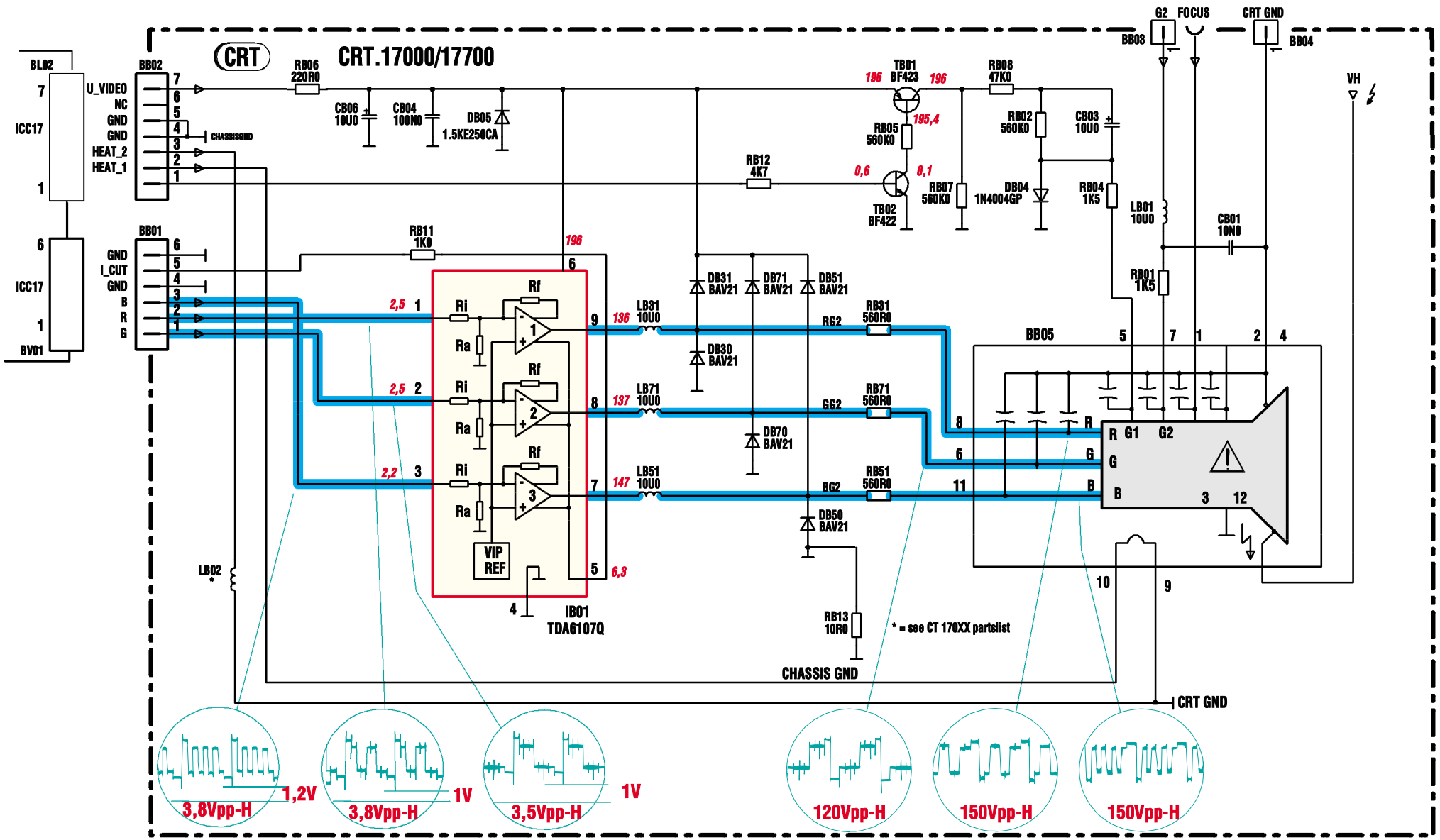
AMPLIFIER SCHEMATIC DIAGRAM - SCHEMA DE L'AMPLIFICATEUR - SCHALTBILD AUDIO-SIGNALVERABEITUNG - SCHEMA DELL' AMPLIFICATORE
ESQUEMA DEL AMPLIFICADOR
(STEREO)



AMPLIFIER SCHEMATIC DIAGRAM - SCHEMA DE L'AMPLIFICATEUR - SCHALTBILD AUDIO-SIGNALVERABEITUNG - SCHEMA DELL' AMPLIFICATORE - ESQUEMA DEL AMPLIFICADOR
(MONO)



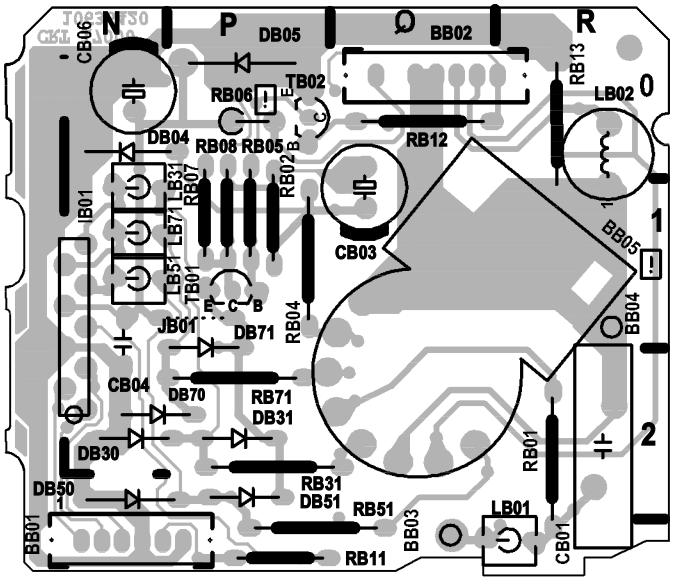
VIDEO AMPLIFIER BOARD - PLATINE AMPLIFICATEURS VIDEO - VIDEOVERSTÄRKERPLATTE - PIASTRA AMPLIFICATORE VIDEO PLATINA AMPLIFICADOR VIDEO



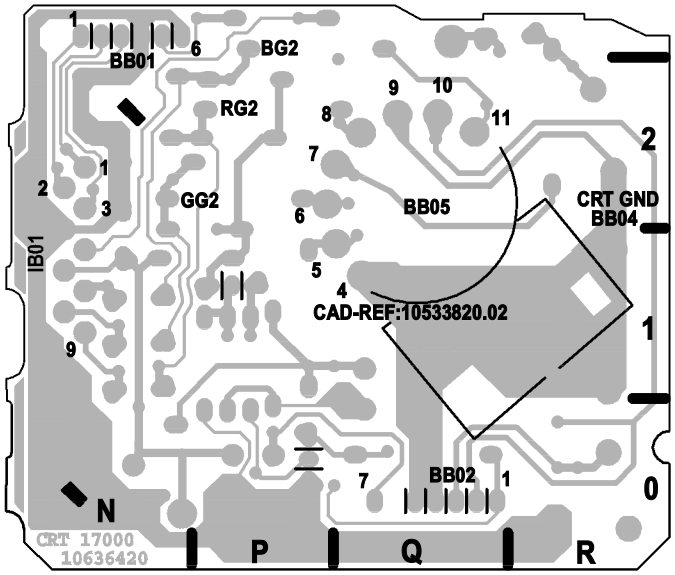
VIDEO AMPLIFIER BOARD - PLATINE AMPLIFICATEURS VIDEO - VIDEOVERSTÄRKERPLATTE
PIASTRA AMPLIFICATORE VIDEO - PLATINA AMPLIFICADOR VIDEO

CRT 17000 / 17700

COMPONENT SIDE - CÖTE COMPOSANTS
BESTÜCKUNGSSEITE - LATO COMPONENTI
LADO COMPONENTES

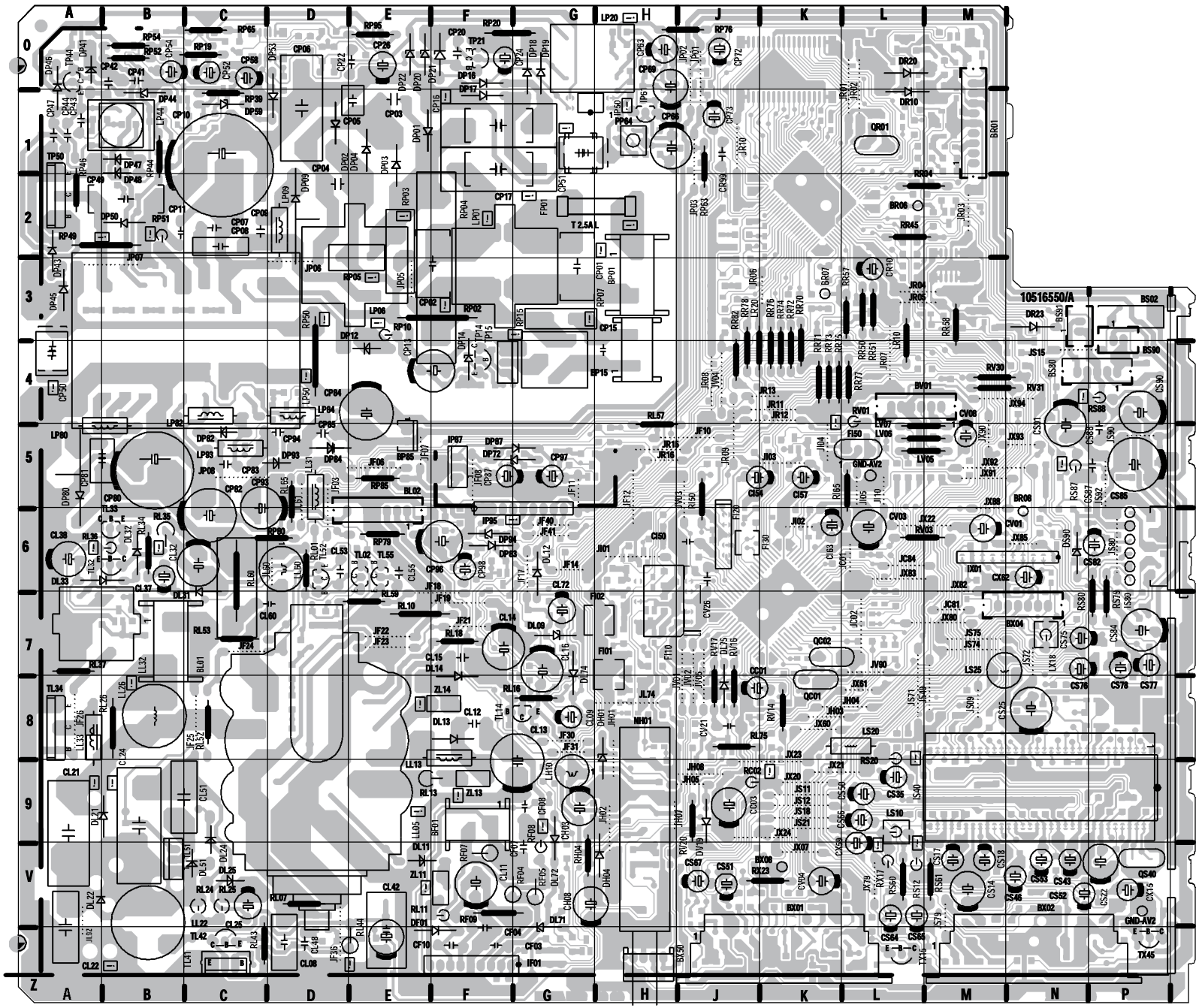


SOLDER SIDE - CÔTE SOUDURES - LÖTSEITE
- LATO SALDATURE - LADO SOLDADURAS

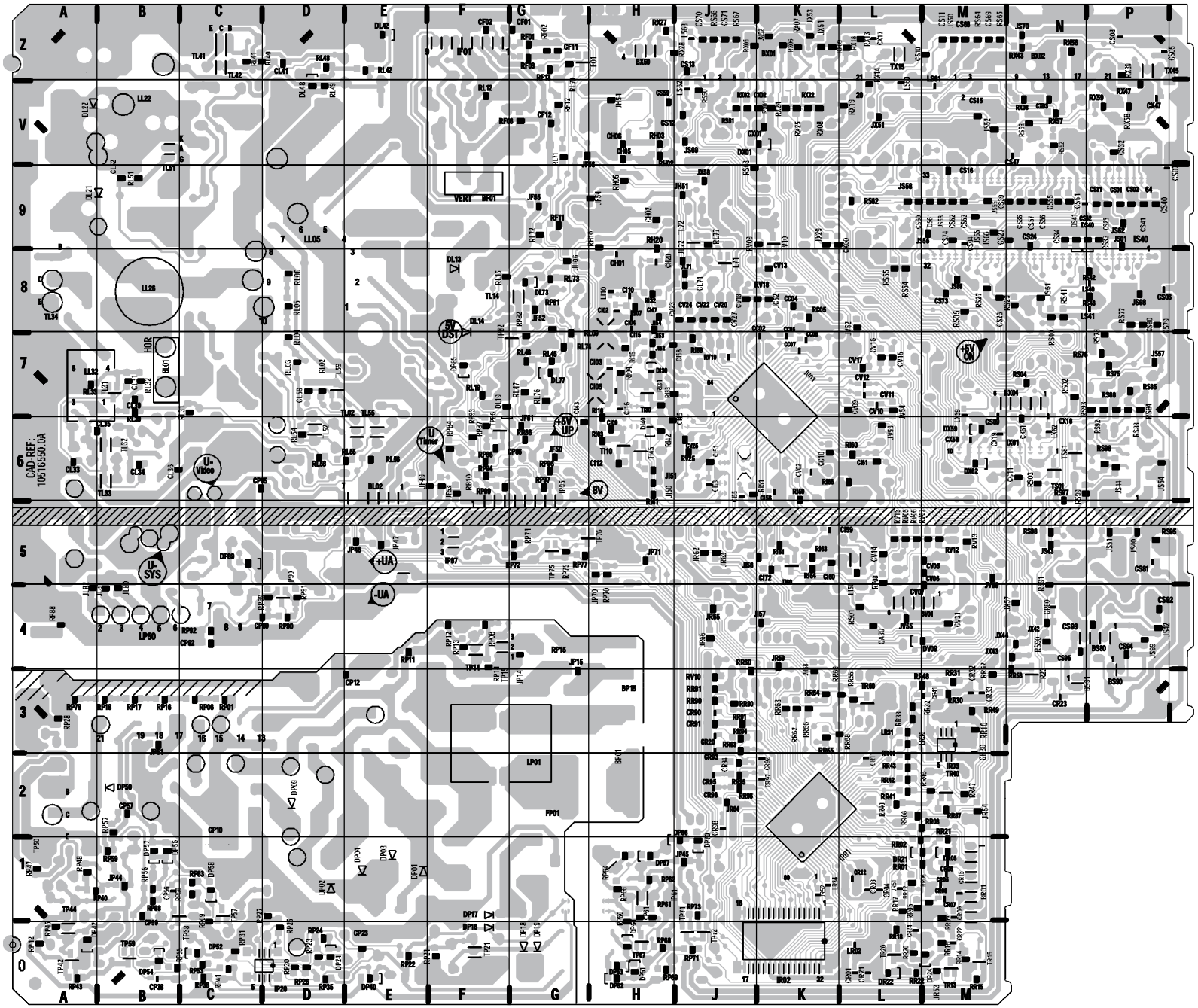


MAIN BOARD - PLATINE PRINCIPALE - CHASSIS GRUNDPLATTE - PIASTRA PRINCIPALE - PLATINA PRINCIPAL

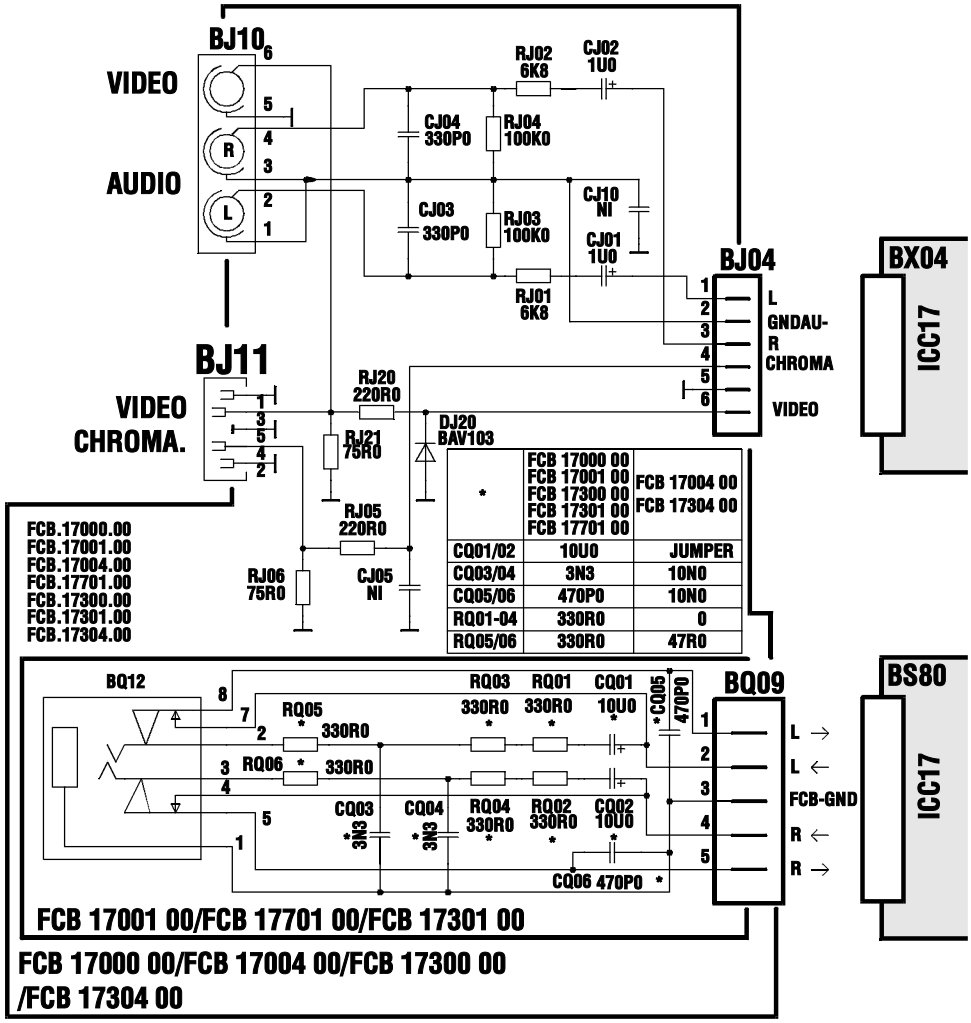
COMPONENT SIDE - COTE COMPOSANTS - BESTÜCKUNGSSEITE - LATO COMPONENTI - LADO COMPONENTES



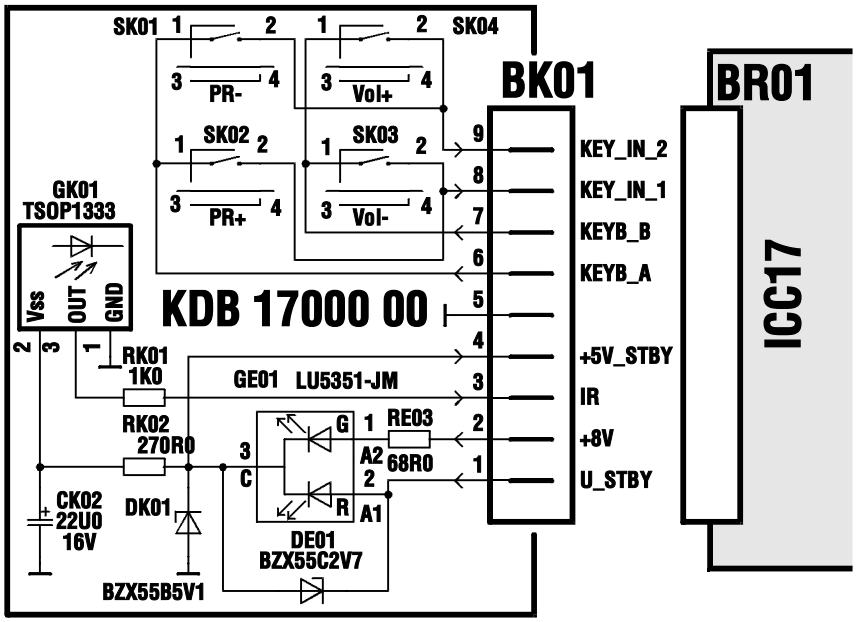
SOLDER SIDE - CÔTE SOUDURES - LÖTSEITE - LATO SALDATURE - LADO SOLDADURAS



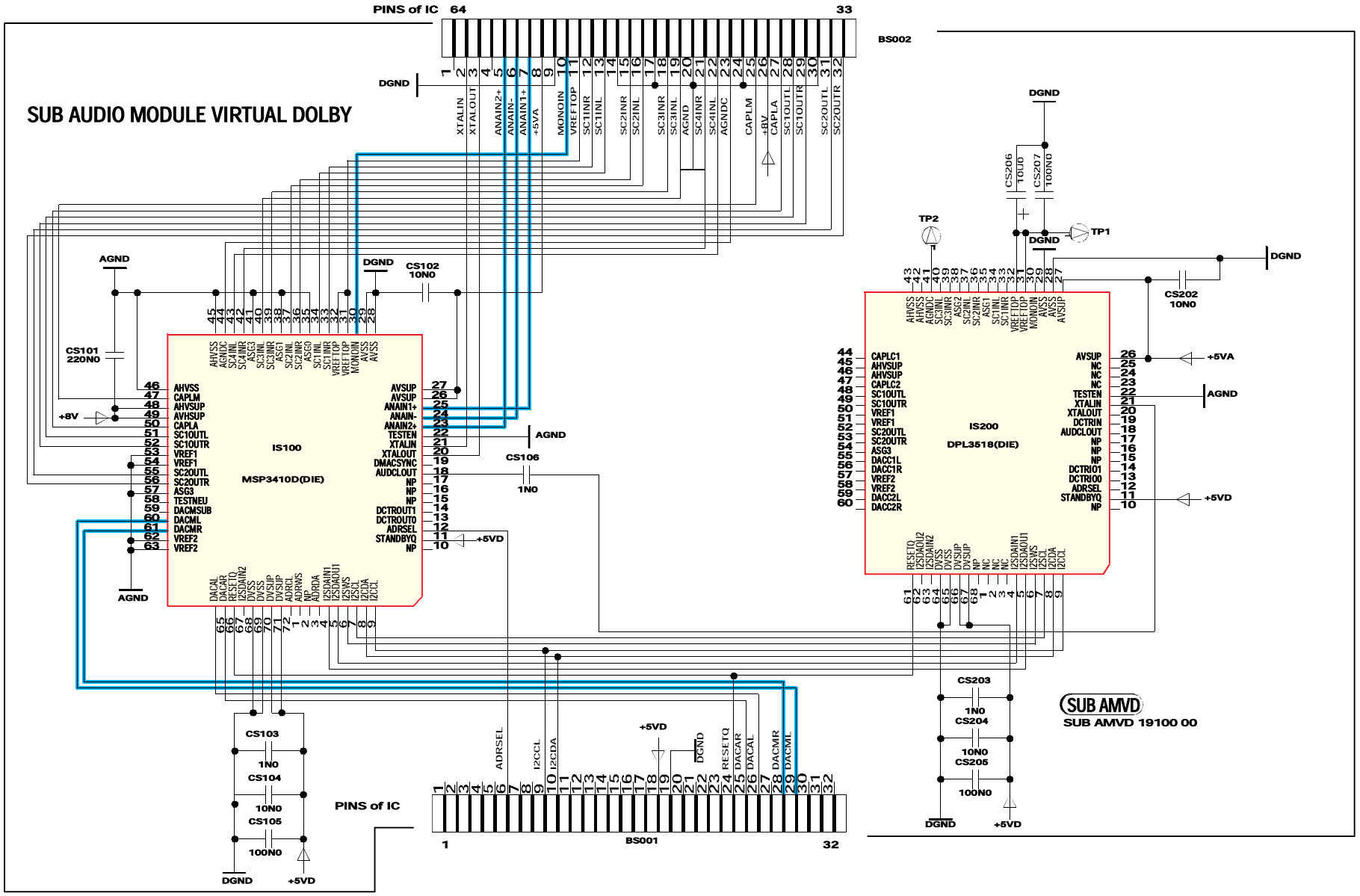
FRONT CONNECTOR BOARD - MODULE PRISE EN FACADE ET INTERCONNXION DU CLAVIER - FRONT ANSCHLUSSPLATTE - PIASTRA CONNESSIONE FRONTALE PLATINA MONDOS FRONTAL



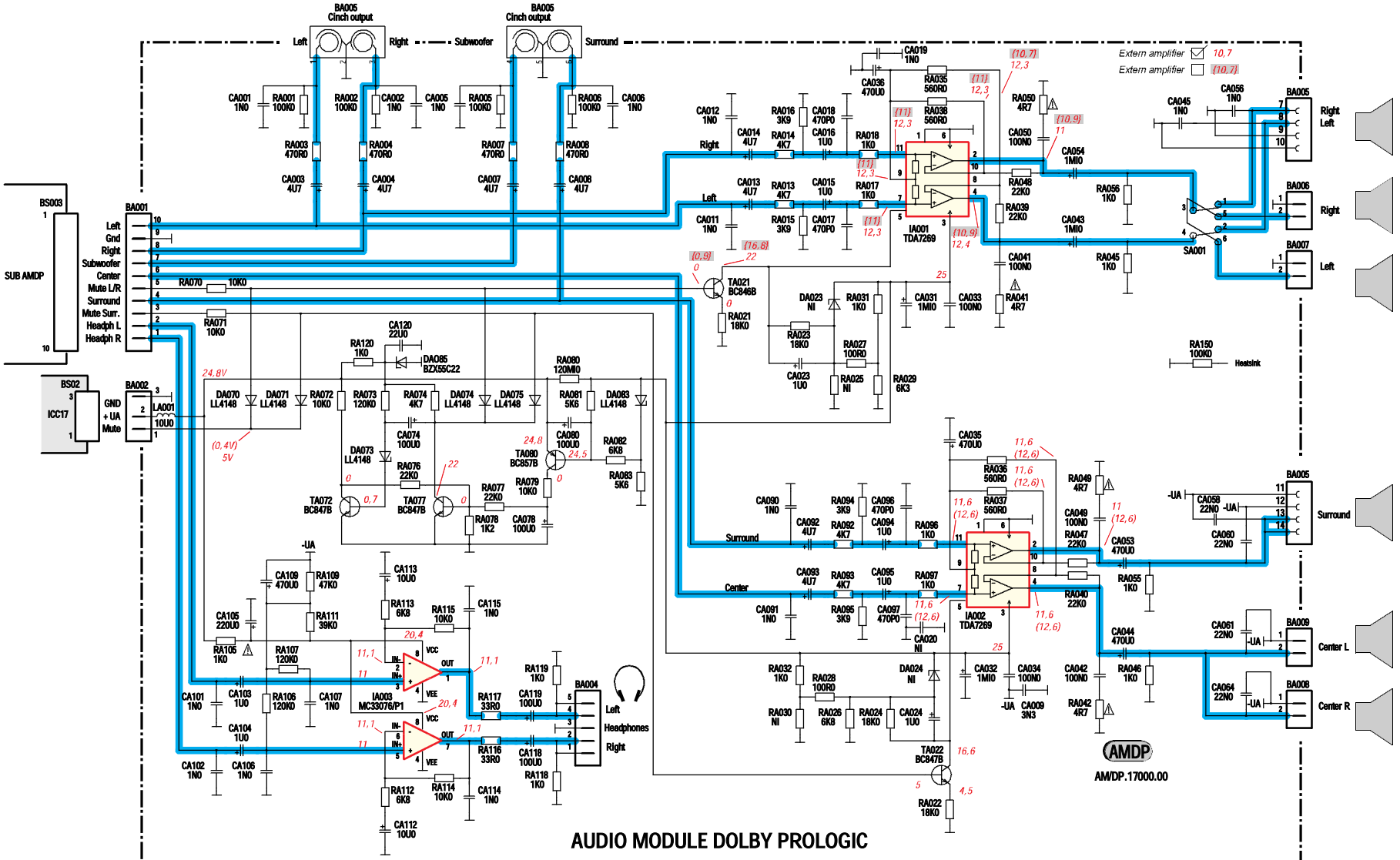
KEYBOARD MODULE - PLATINE CLAVIER - BEDIENTEILPLATTE - PIASTRA COMANDI - PLATINA TECLADO

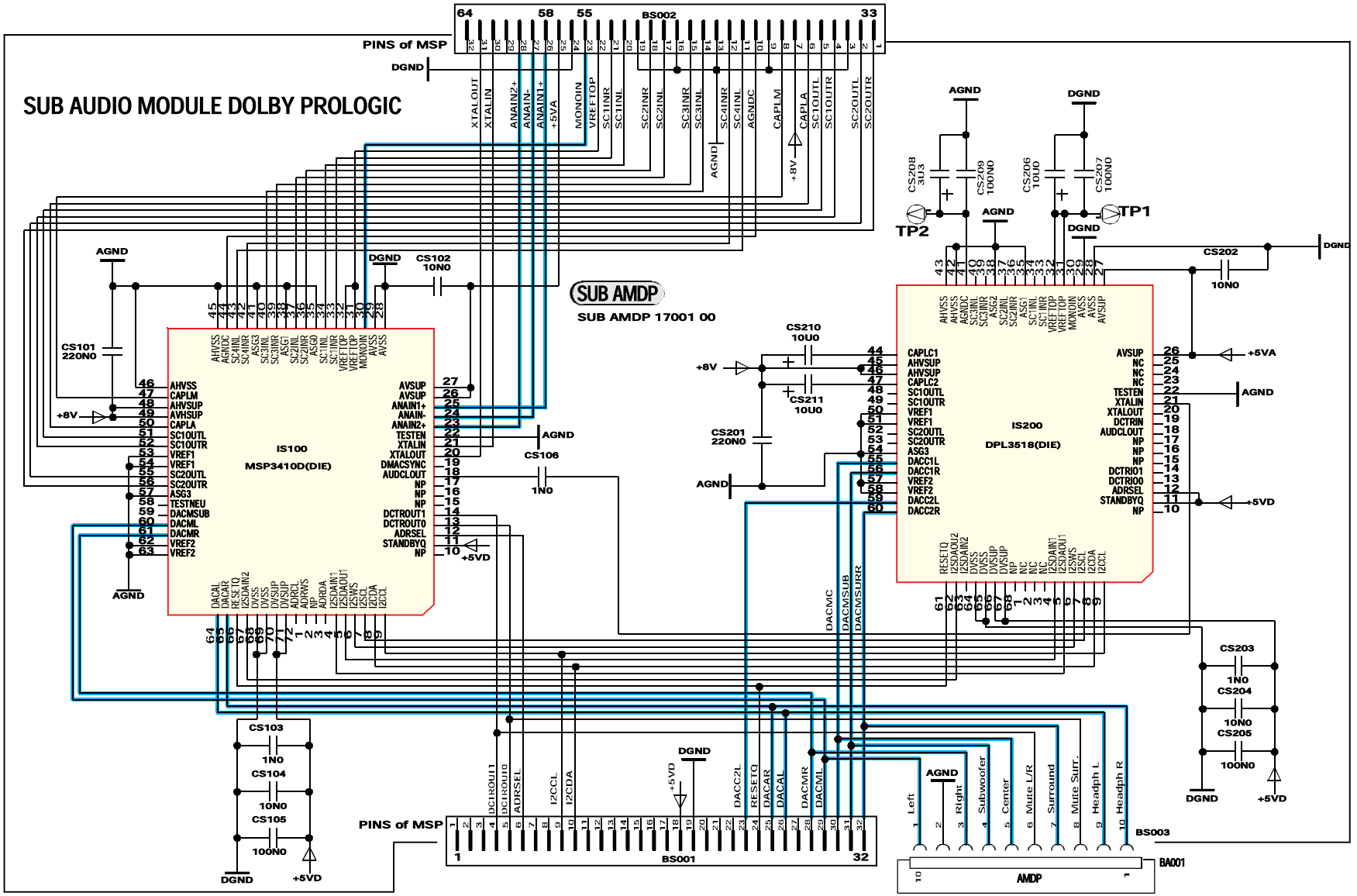


SUB AUDIO SIGNAL MODULE - SUB MODULE AUDIO - AUDIO SIGNAL SUBMODUL - SUB MODULO AUDIO



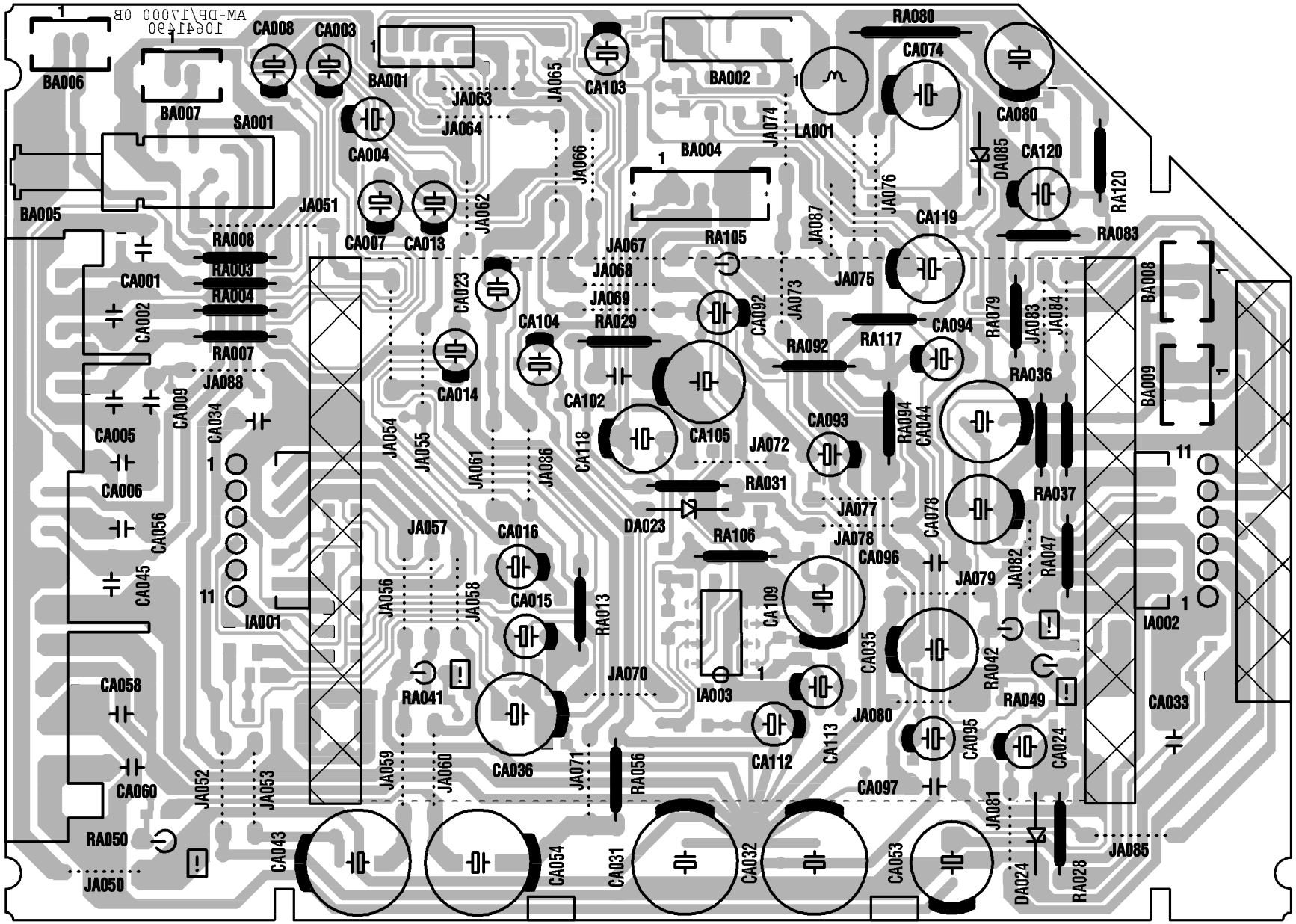
AUDIO SIGNAL MODULE DOLBY PROLOGIC - MODULE AUDIO DOLBY PROLOGIC - DOLBY PROLOGIC VERSTÄRKER - MODULO AUDIO DOLBY PROLOGIC
ESQUEMA DEL MÖDULO AMPLIFICADOR DE AUDIO




SUB AUDIO MODULE DOLBY PROLOGIC
SUB AMDP
SUB AMDP 17001 00
IS100
MSP3410D(DIE)
IS200
DPL3518(DIE)
PINS of MSP
BS002
BS001
BS003
BA001
AMDP
AGND
DGND
+8V
+5VA
+5VD
TP1
TP2
CS101 220N0
CS102 10N0
CS106 1N0
CS201 220N0
CS202 10N0
CS203 1N0
CS204 10N0
CS205 100N0
CS206 10U0
CS207 100N0
CS208 3U3
CS209 100N0
CS210 10U0
CS211 10U0
CS103 1N0
CS104 10N0
CS105 100N0
Left
Right
Subwoofer
Center
Mute L/R
Surround
Mute Surr.
Headph L
Headph R

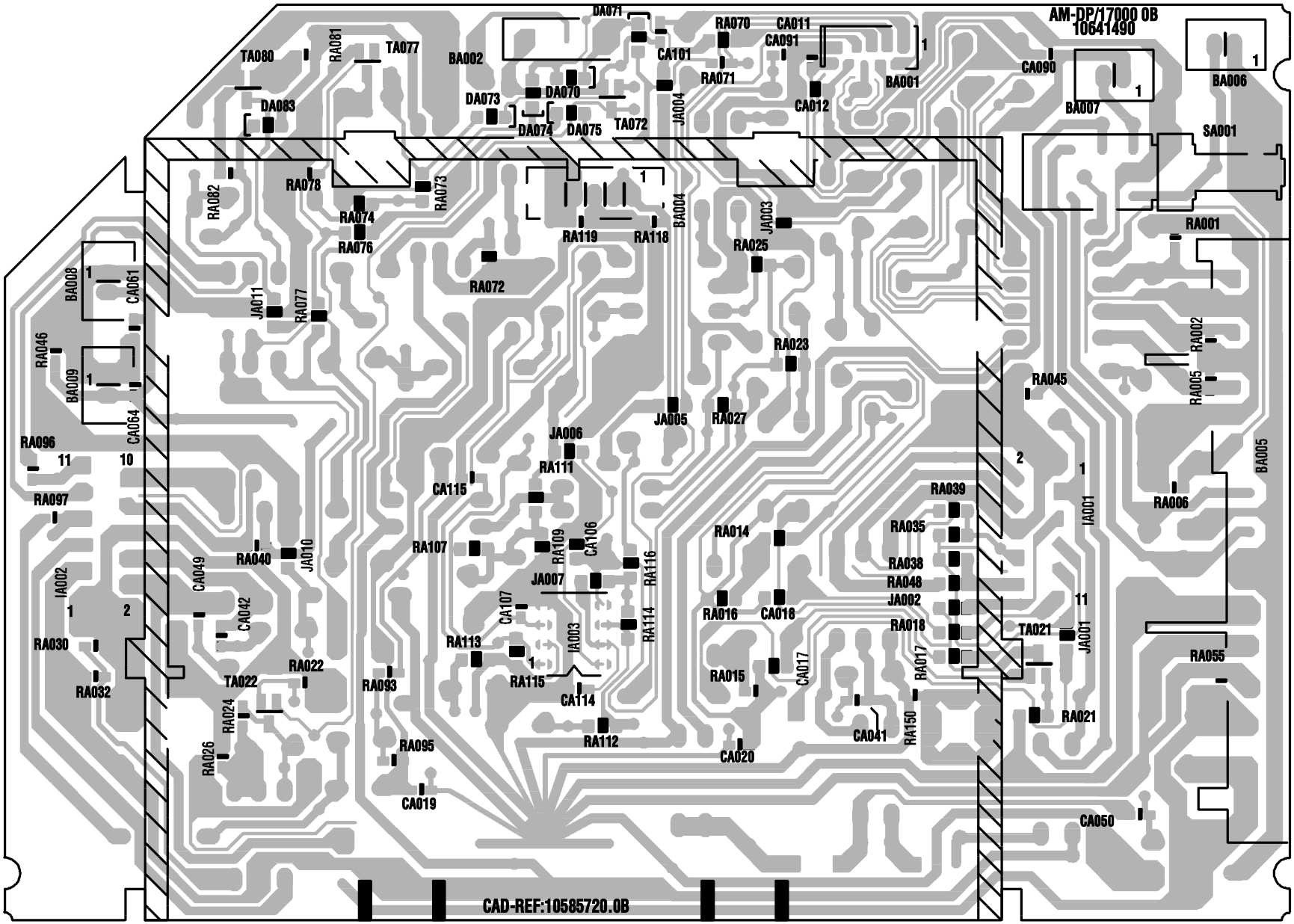
AUDIO SIGNAL MODULE DOLBY PROLOGIC - MODULE AUDIO DOLBY PROLOGIC - DOLBY PROLOGIC VERSTÄRKER - MODULO AUDIO DOLBY PROLOGIC - ESQUEMA DEL MÕDULO AMPLIFICADOR DE AUDIO

COMPONENT SIDE - CÖTE COMPOSANTS - BESTÜCKUNGSSEITE -LATO COMPONENTI - LADO COMPONENTES

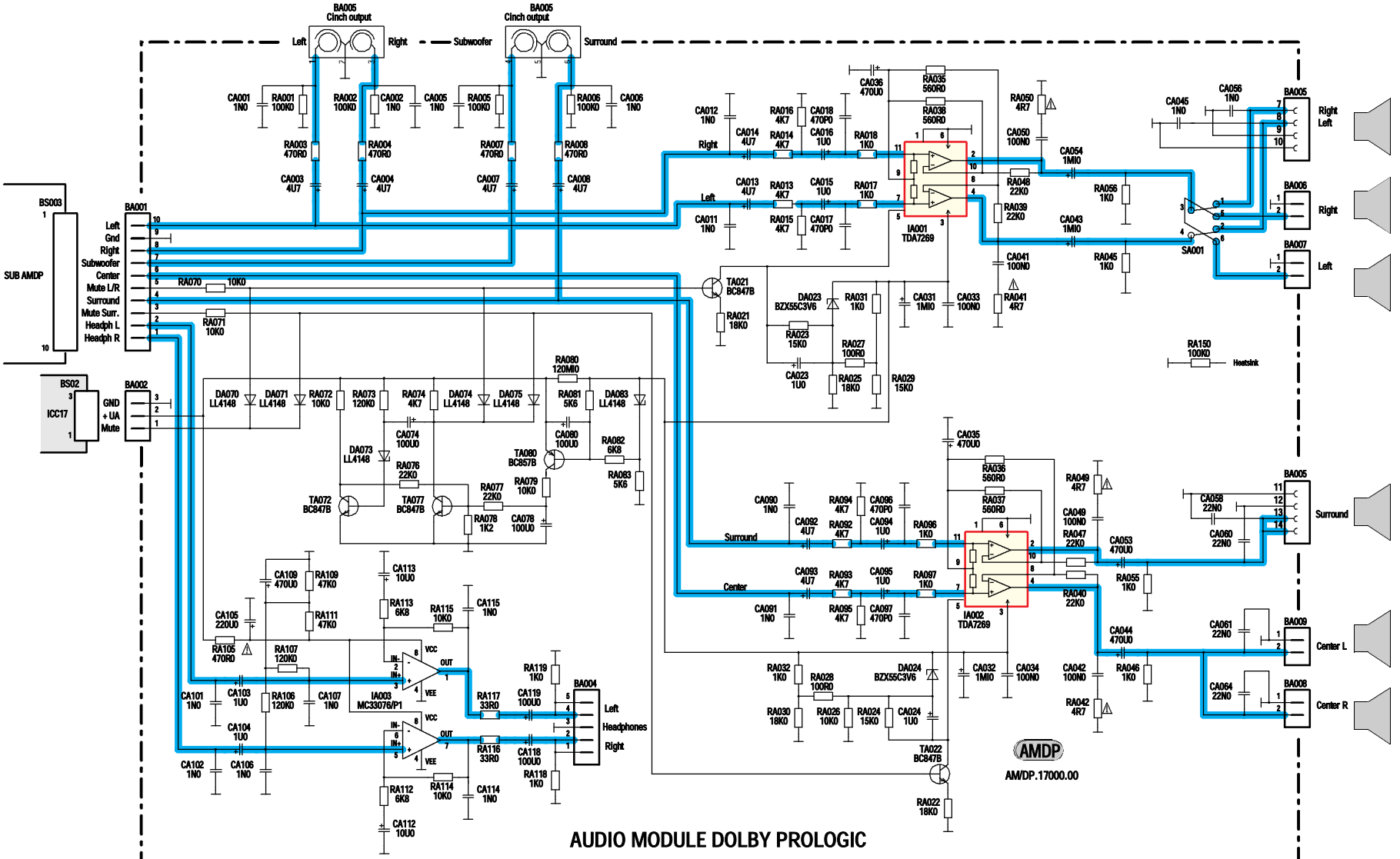


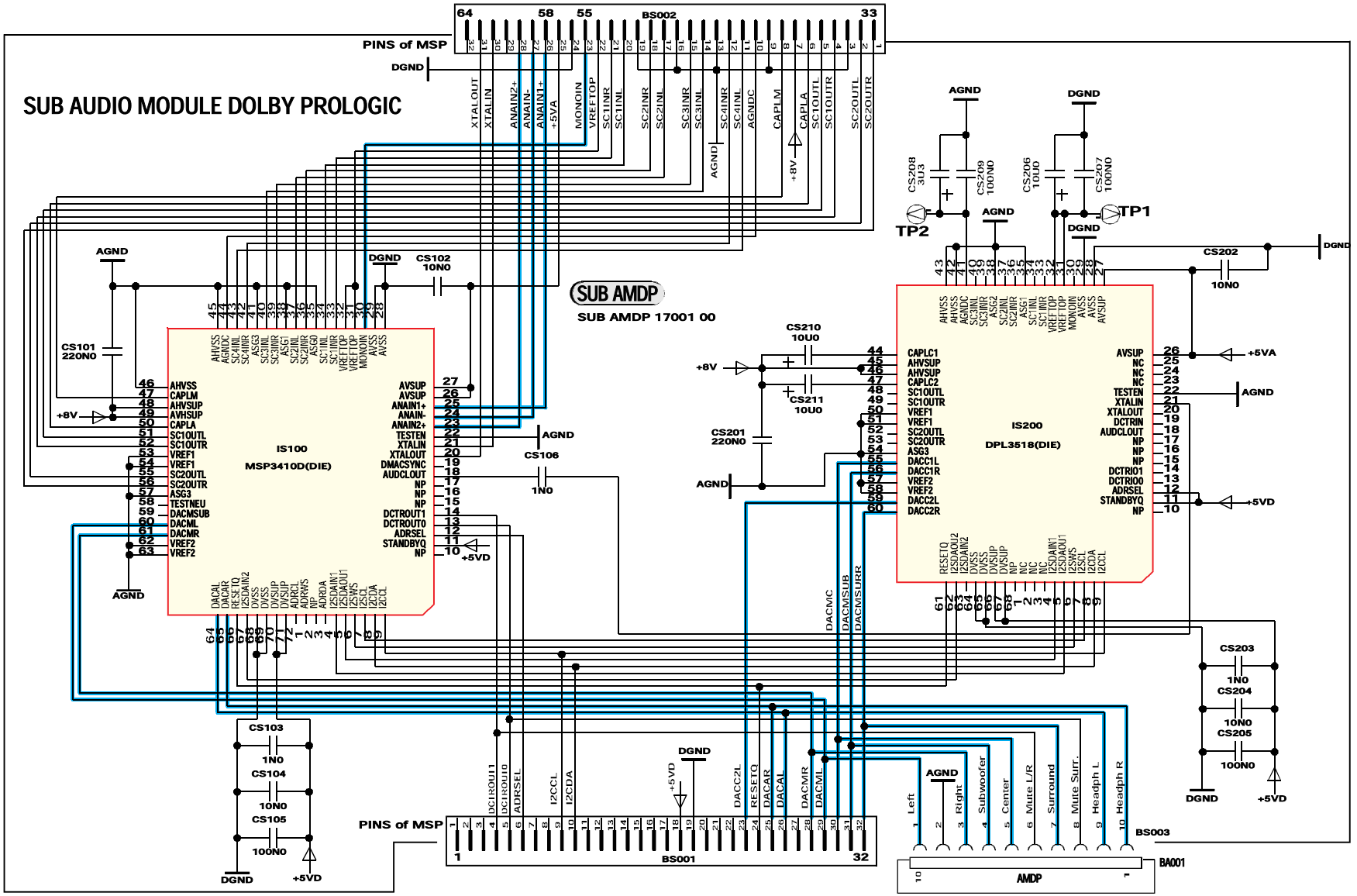
AUDIO SIGNAL MODULE DOLBY PROLOGIC - MODULE AUDIO DOLBY PROLOGIC - DOLBY PROLOGIC VERSTÄRKER - MODULO AUDIO DOLBY PROLOGIC - ESQUEMA DEL MÕDULO AMPLIFICADOR DE AUDIO

SOLDER SIDE - CÔTE SOUDURES - LÖTSEITE - LATO SALDATURE - LADO SOLDADURAS



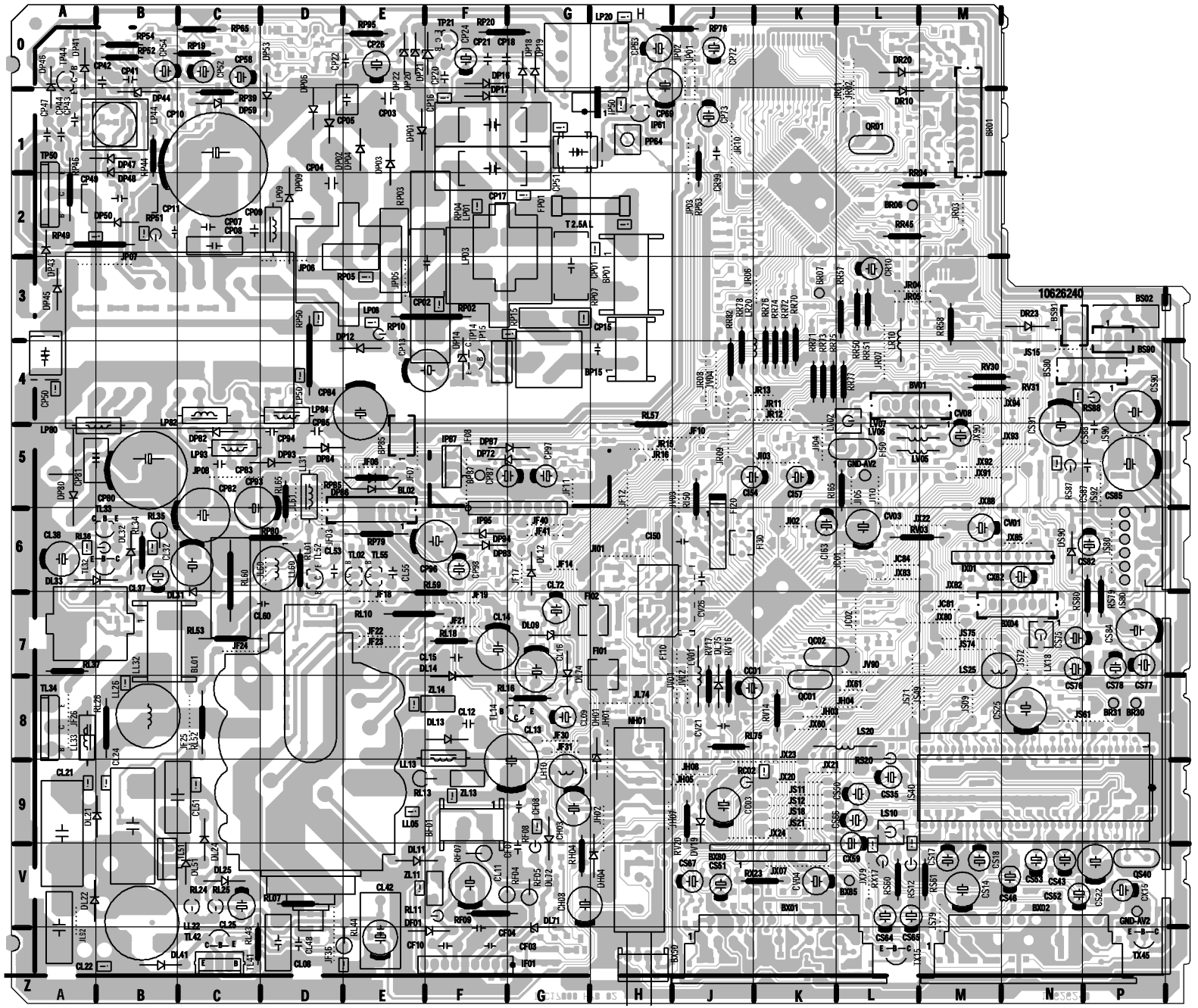
AUDIO SIGNAL MODULE DOLBY PROLOGIC - MODULE AUDIO DOLBY PROLOGIC - DOLBY PROLOGIC VERSTÄRKER - MODULO AUDIO DOLBY PROLOGIC
ESQUEMA DEL MÖDULO AMPLIFICADOR DE AUDIO




SUB AUDIO MODULE DOLBY PROLOGIC
SUB AMDP
SUB AMDP 17001 00
IS100
MSP3410D(DIE)
IS200
DPL3518(DIE)
PINS of MSP
BS002
BS001
BS003
BA001
AMDP
AGND
DGND
+8V
+5VA
+5VD
TP1
TP2
CS101 220N0
CS102 10N0
CS106 1N0
CS201 220N0
CS202 10N0
CS203 1N0
CS204 10N0
CS205 100N0
CS206 10U0
CS207 100N0
CS208 3U3
CS209 100N0
CS210 10U0
CS211 10U0
CS103 1N0
CS104 10N0
CS105 100N0
Left
Right
Subwoofer
Center
Mute L/R
Surround
Mute Surr.
Headph L
Headph R

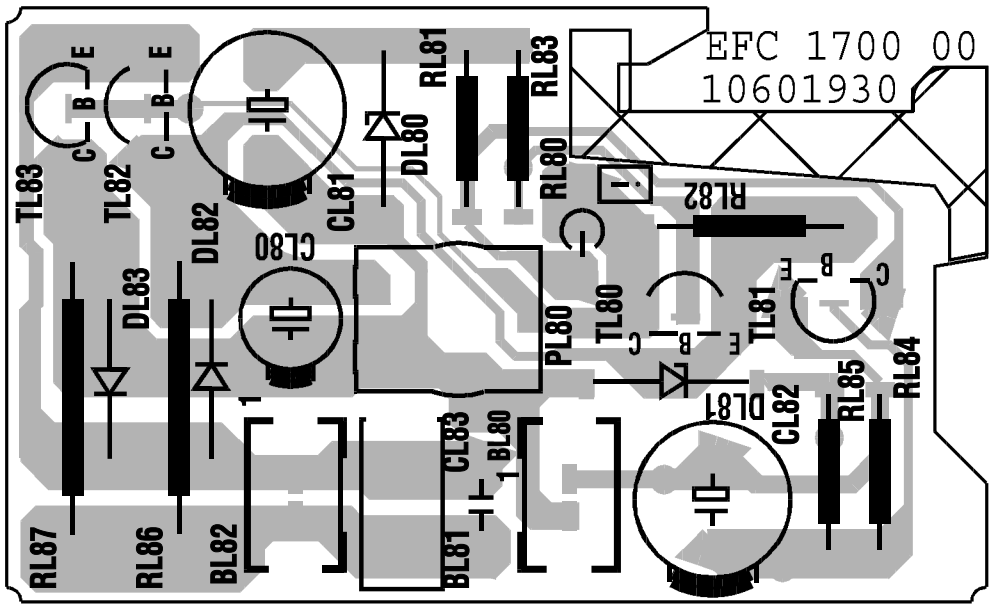
MAIN BOARD - PLATINE PRINCIPALE - CHASSIS GRUNDPLATTE - PIASTRA PRINCIPALE - PLATINA PRINCIPAL

COMPONENT SIDE - COTE COMPOSANTS - BESTÜCKUNGSSEITE - LATO COMPONENTI - LADO COMPONENTES

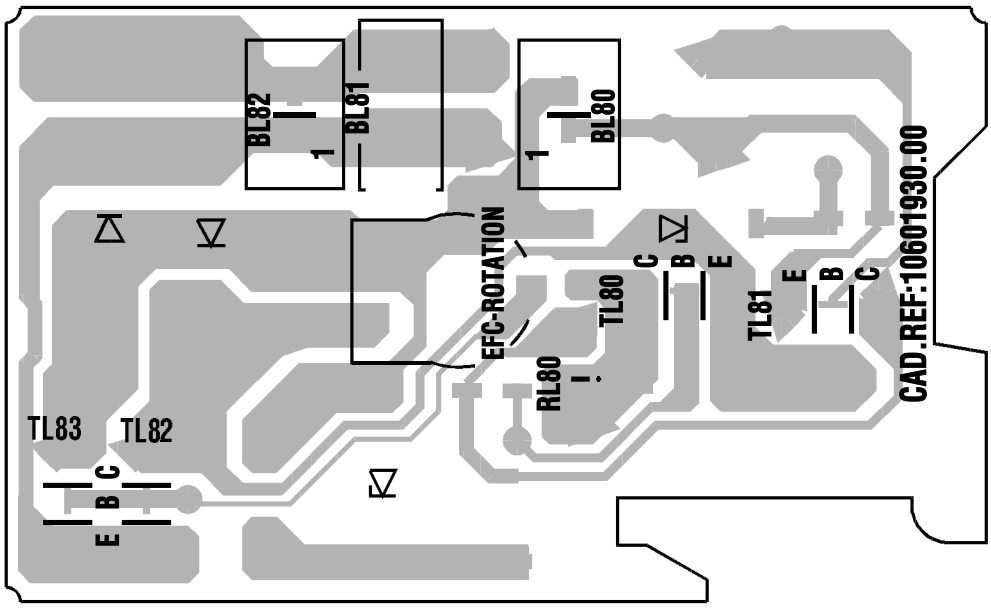


EFC 17000
EARTH-FIELD CORRECTION BOARD

COMPONENT SIDE - CÖTE COMPOSANTS - BESTÜCKUNGSSEITE -LATO COMPONENTI
LADO COMPONENTES

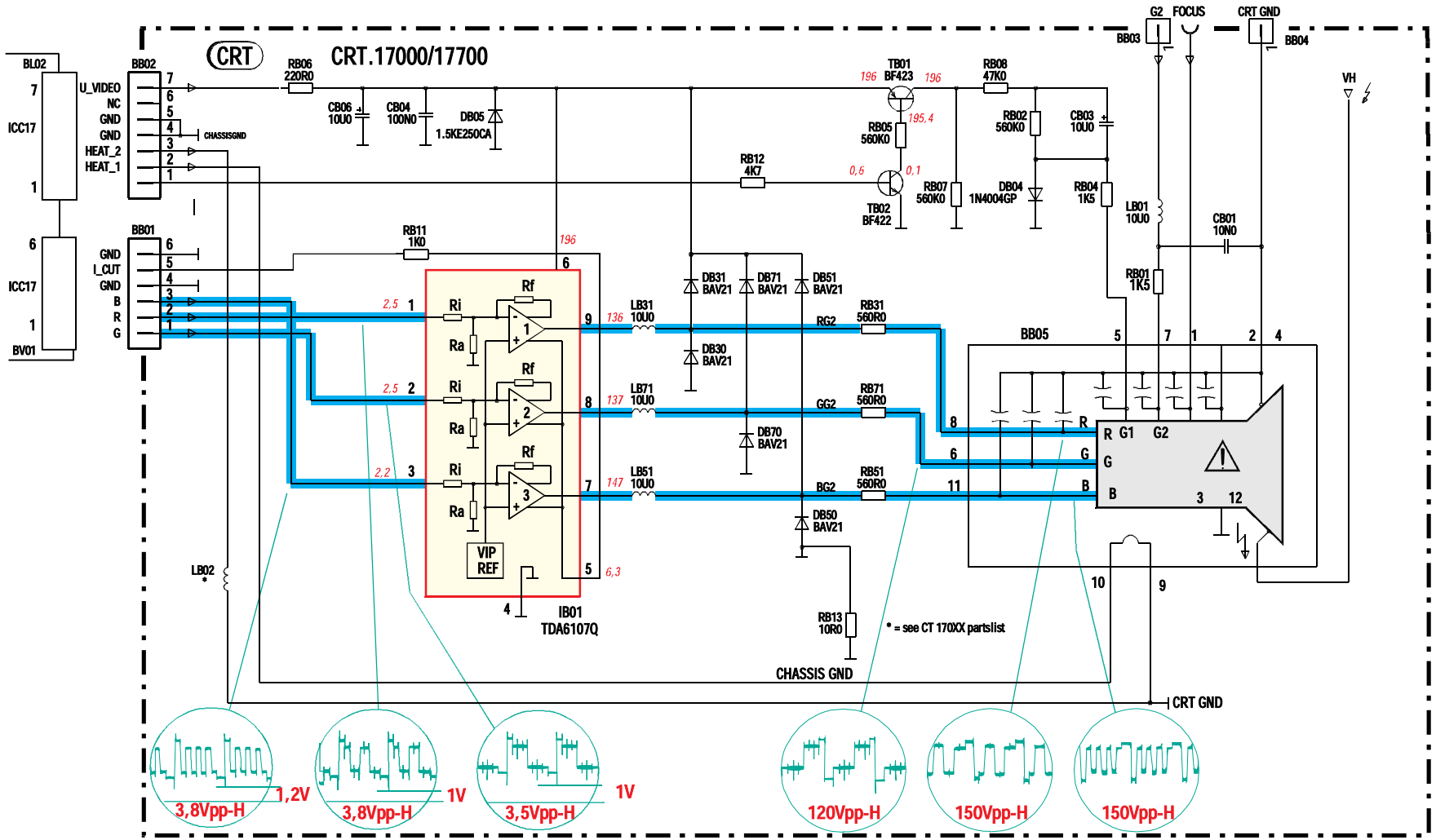


SOLDER SIDE - CÔTE SOUDURES - LÖTSEITE - LATO SALDATURE - LADO SOLDADURAS



SOLDER SIDE - CÔTE SOUDURES - LÖTSEITE - LATO SALDATURE - LADO SOLDADURAS

VIDEO AMPLIFIER BOARD - PLATINE AMPLIFICATEURS VIDEO - VIDEOVERSTÄRKERPLATTE - PIASTRA AMPLIFICATORE VIDEO - PLATINA AMPLIFICADOR VIDEO

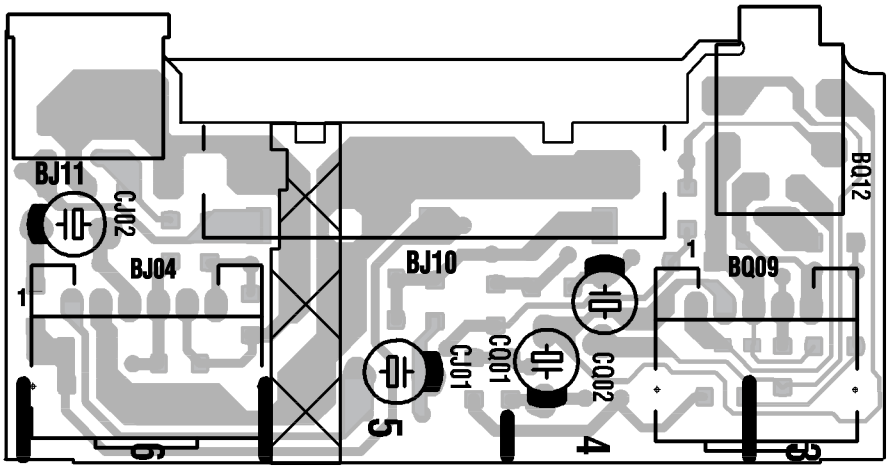


ICC17
First issue 07 / 98

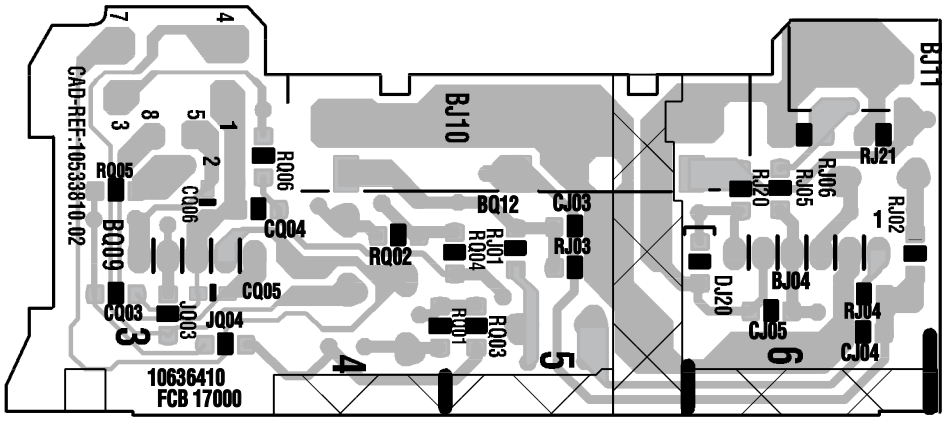
Up^dated 04 / 99

FRONT CONNECTOR BOARD - PRISES EN FACADE - FRONT ANSCHLUSSPLATTE
PIASTRA CONNESSIONE FRONTALE - PLÁTINA MANDOS FRRONTAL

COMPONENT SIDE - CÖTE COMPOSANTS - BESTÜCKUNGSSEITE -LATO COMPONENTI
LADO COMPONENTES

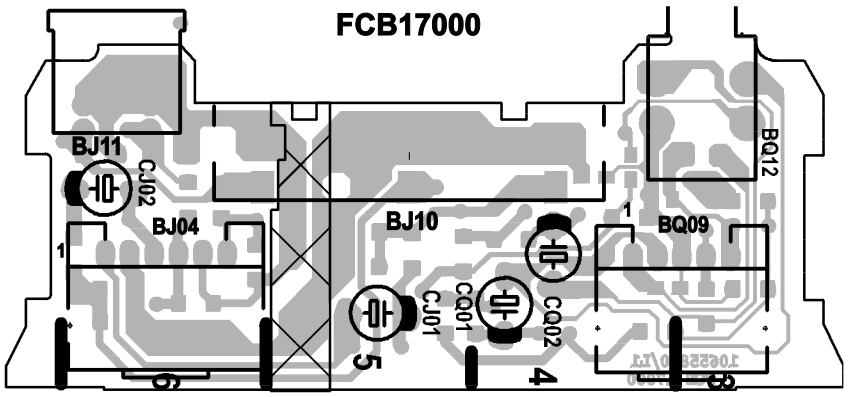


SOLDER SIDE - CÔTE SOUDURES - LÖTSEITE - LATO SALDATURE - LADO SOLDADURAS

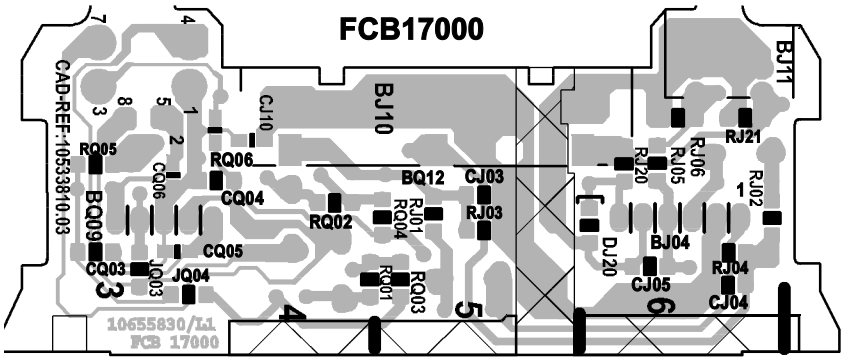


FRONT CONNECTOR BOARD - MODULE PRISE EN FACADE ET INTERCONNXION DU CLAVIER - FRONT ANSCHLUSSPLATTE - PIASTRA CONNESSIONE FRONTALE PLATINA MONDOS FRONTAL

COMPONENT SIDE - COTE COMPOSANTS - BESTÜCKUNGSSEITE - LATO COMPONENTI - LADO COMPONENTES



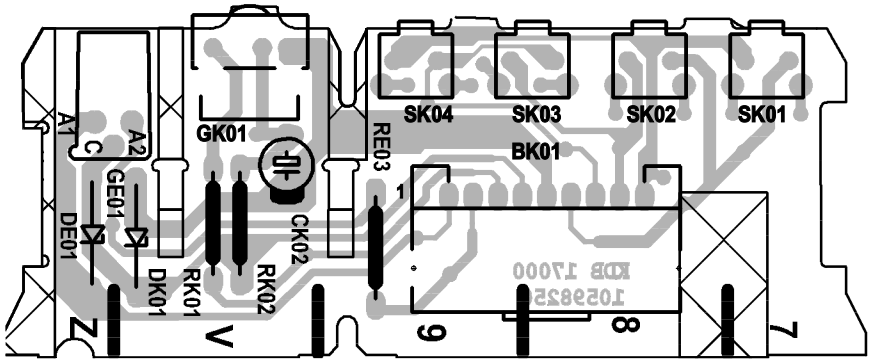
SOLDER SIDE - CÔTE SOUDURES - LÖTSEITE - LATO SALDATURE - LADO SOLDADURAS



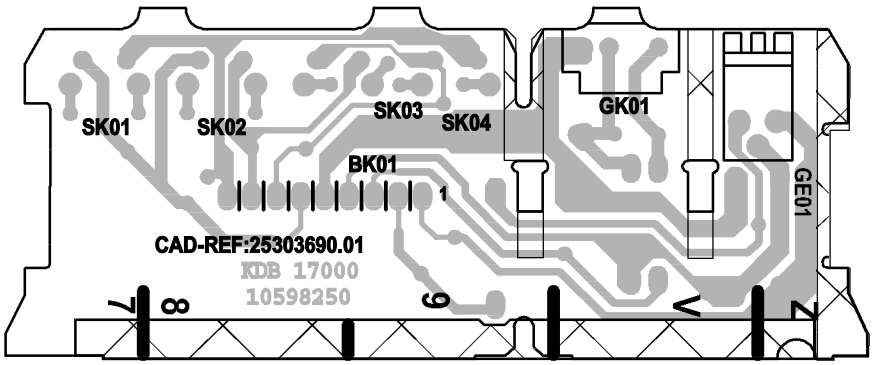
KEYBOARD MODULE - PLATINE CLAVIER - BEDIENTEILPLATTE - PIASTRA COMANDI - PLATINA TECLADO

KDB17000

COMPONENT SIDE - COTE COMPOSANTS - BESTÜCKUNGSSEITE - LATO COMPONENTI - LADO COMPONENTES

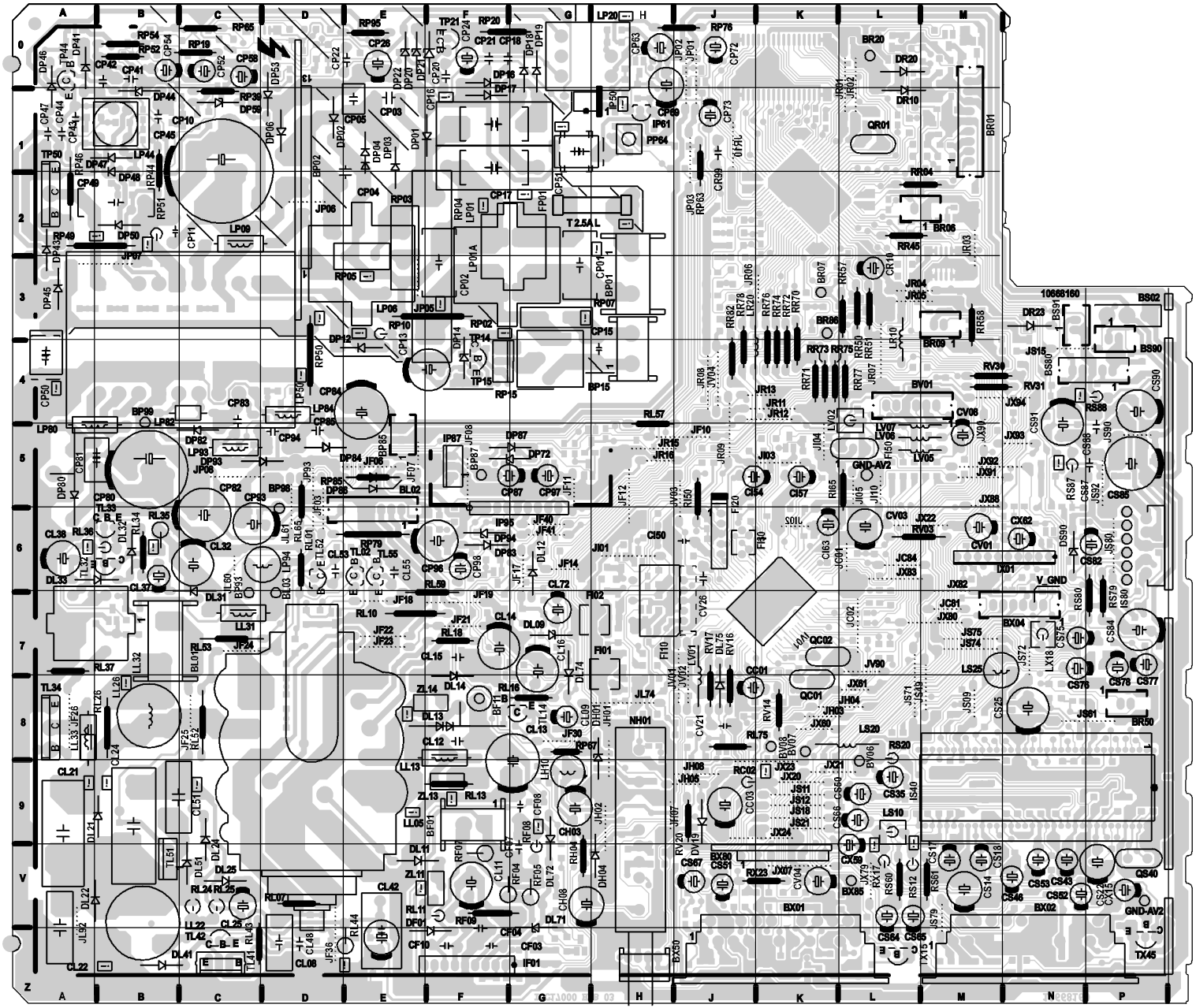


SOLDER SIDE - CÔTE SOUDURES - LÖTSEITE - LATO SALDATURE - LADO SOLDADURAS

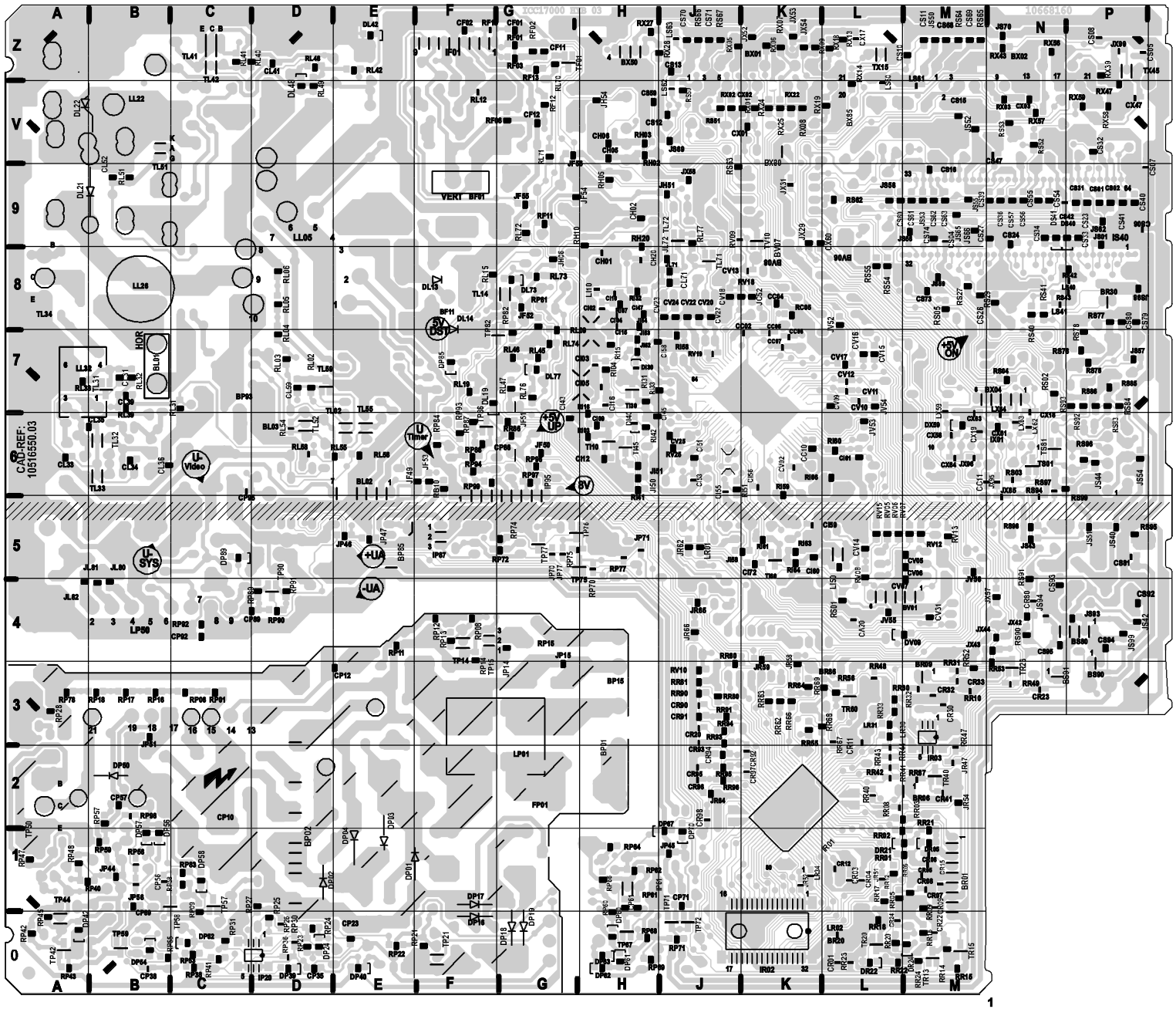


MAIN BOARD - PLATINE PRINCIPALE - CHASSIS GRUNDPLATTE - PIASTRA PRINCIPALE - PLATINA PRINCIPAL

COMPONENT SIDE - COTE COMPOSANTS - BESTÜCKUNGSSEITE - LATO COMPONENTI - LADO COMPONENTES

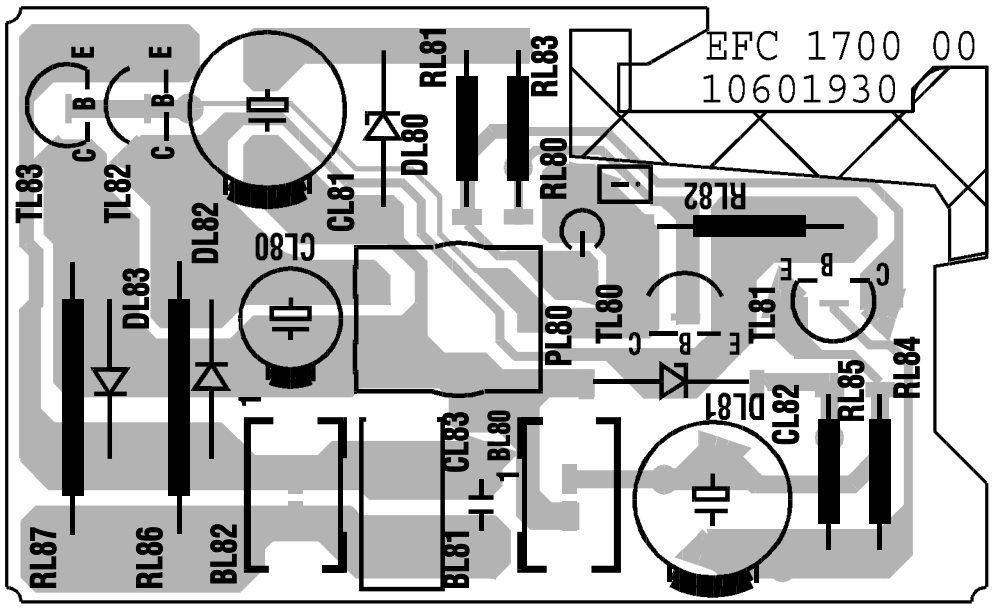


SOLDER SIDE - CÔTE SOUDURES - LÖTSEITE - LATO SALDATURE - LADO SOLDADURAS

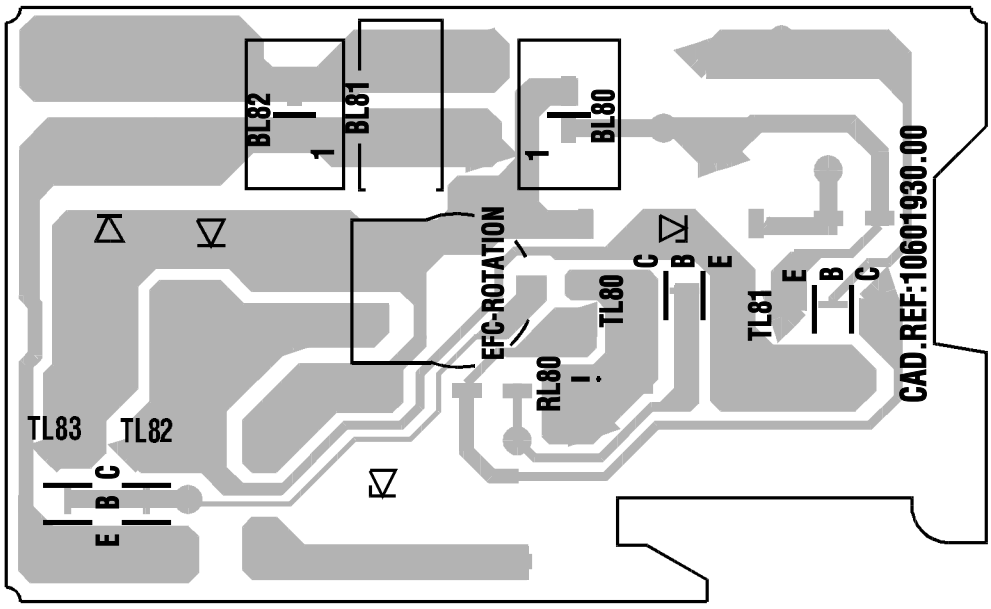


EFC 17000
EARTH-FIELD CORRECTION BOARD

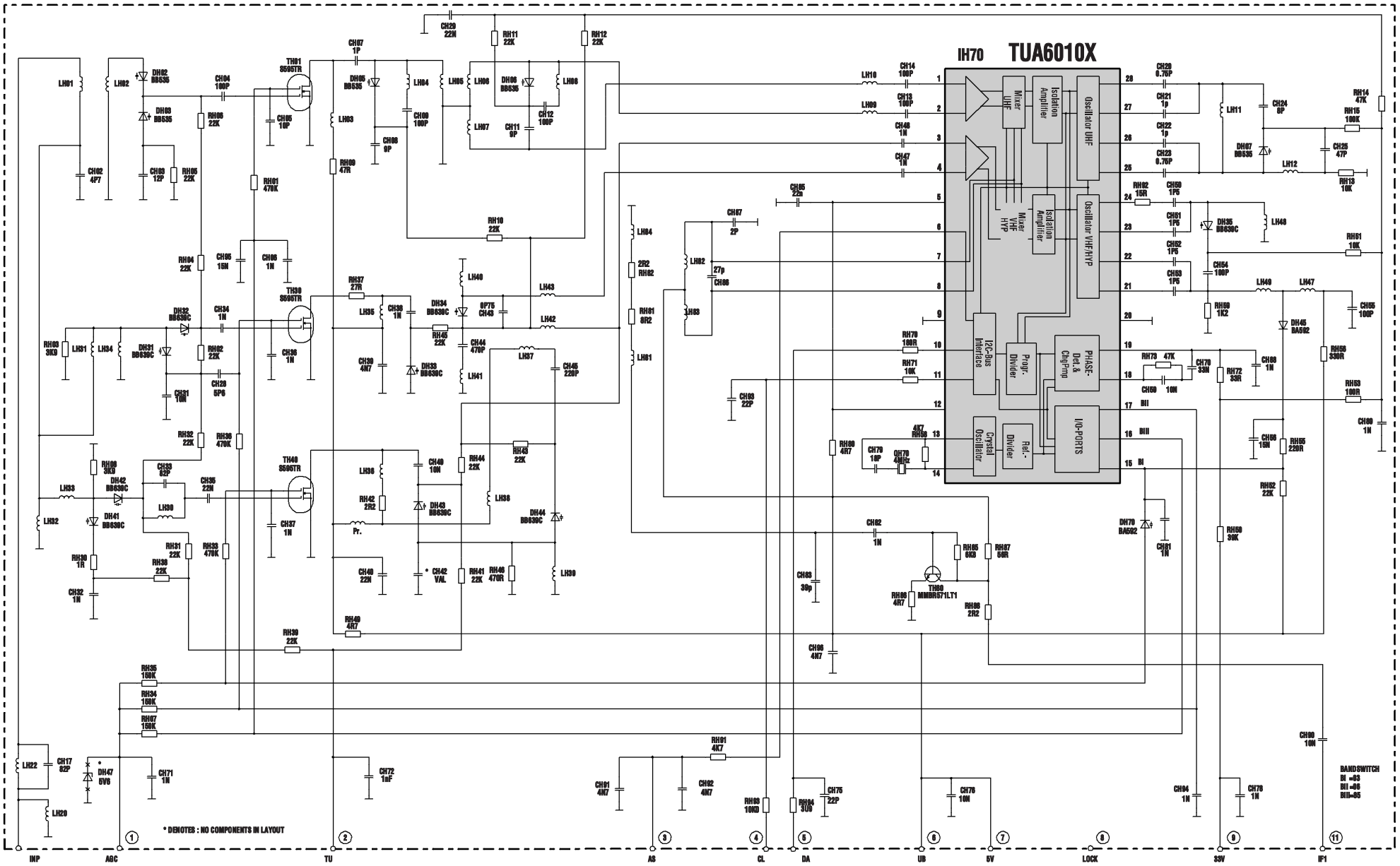
COMPONENT SIDE - CÖTE COMPOSANTS - BESTÜCKUNGSSEITE -LATO COMPONENTI
LADO COMPONENTES

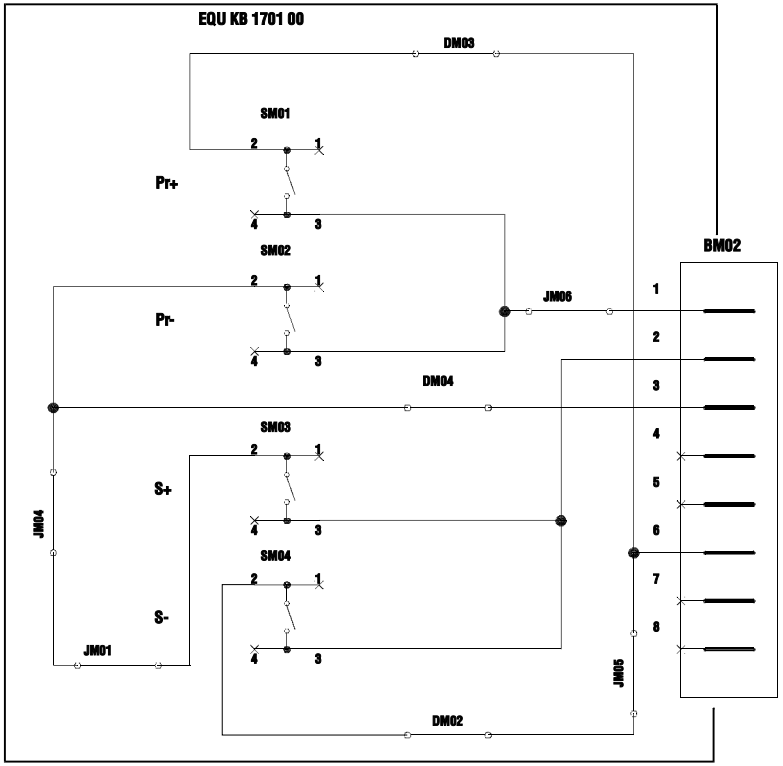


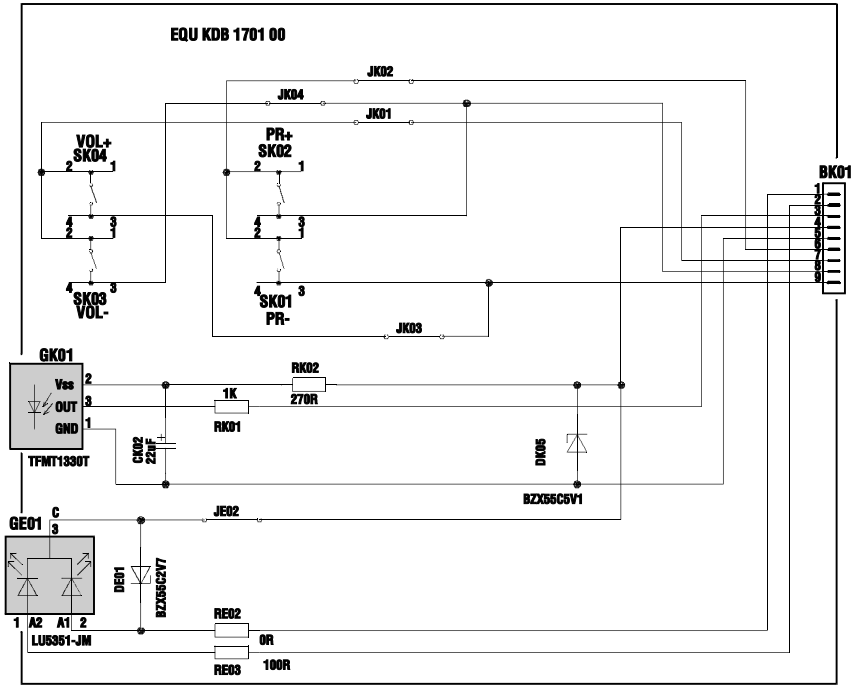
SOLDER SIDE - CÔTE SOUDURES - LÖTSEITE - LATO SALDATURE - LADO SOLDADURAS

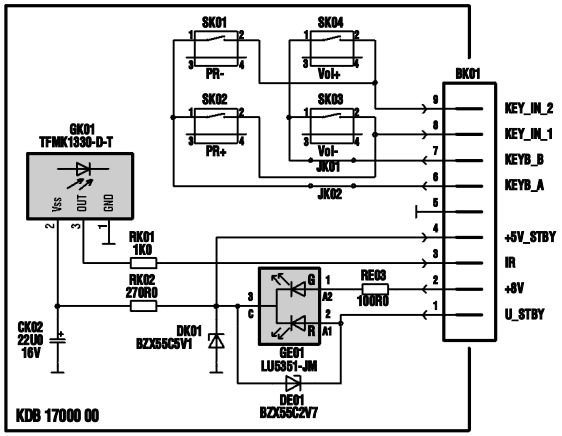


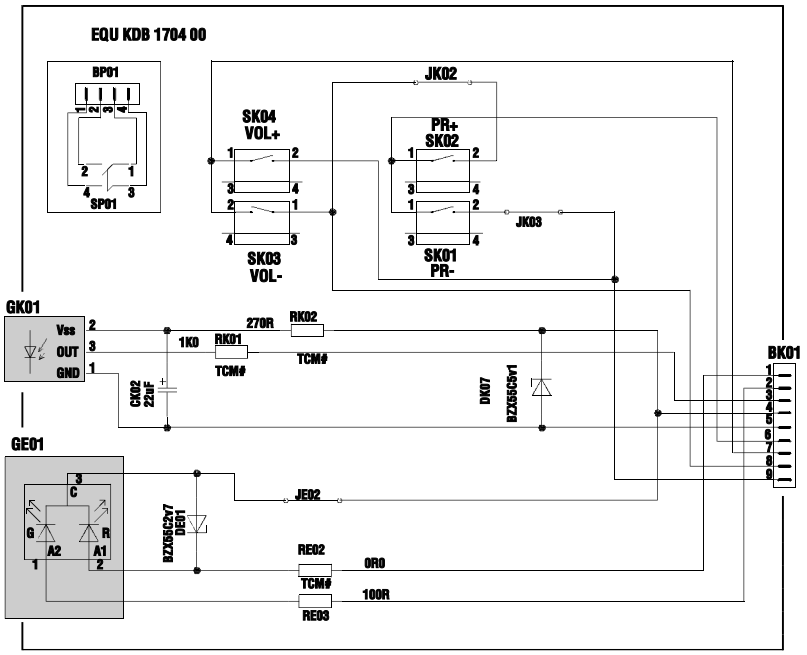
VHF / UHF TUNER CTT5010 (For information only)

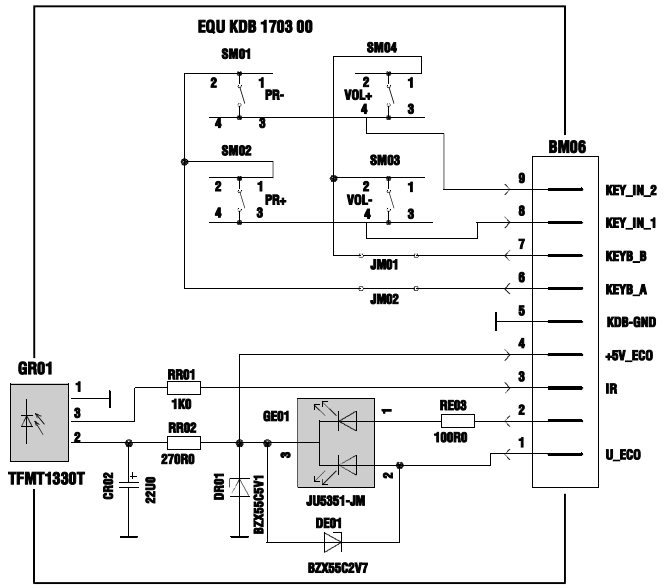


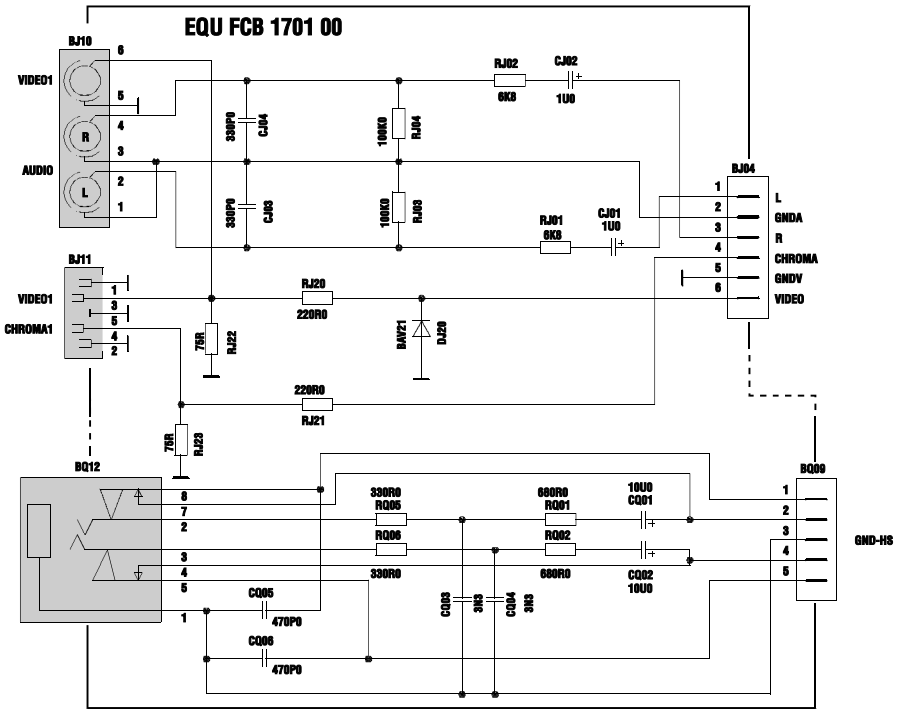

EQU KB 1701 00
DM03
SM01
Pr+
SM02
Pr-
JM06
BM02
DM04
SM03
S+
JM04
SM04
S-
JM01
JM05
DM02


EQU KDB 1701 00
JK02
JK04
JK01
VOL+
SK04
PR+
SK02
BK01
SK03
VOL-
SK01
PR-
JK03
GK01
Vss
OUT
GND
TFMT1330T
RK02
270R
1K
RK01
CK02
22uF
DK05
BZX55C5V1
GE01
C
JE02
DE01
BZX55C2V7
A2
A1
LU5351-JM
RE02
0R
RE03
100R


SK01
SK04
PR-
Vol+
SK02
SK03
PR+
Vol-
JK01
JK02
BK01
KEY_IN_2
KEY_IN_1
KEYB_B
KEYB_A
+5V_STBY
IR
+8V
U_STBY
GK01
TFMK1330-D-T
Vss
OUT
GND
RK01
1K0
RK02
270R0
RE03
100R0
CK02
22U0
16V
DK01
BZX55C5V1
GE01
LU5351-JM
DE01
BZX55C2V7
KDB 17000 00


EQU KDB 1704 00
BP01
SP01
SK04
VOL+
JK02
PR+
SK02
SK03
VOL-
SK01
PR-
JK03
BK01
GK01
Vss
OUT
GND
270R
RK02
1K0
RK01
TCM#
CK02
22uF
DK07
BZX55C5v1
GE01
C
G
R
A2
A1
JE02
BZX55C2v7
DE01
RE02
0R0
RE03
100R


EQU KDB 1703 00
SM01
PR-
SM04
VOL+
SM02
PR+
SM03
VOL-
JM01
JM02
BM06
KEY_IN_2
KEY_IN_1
KEYB_B
KEYB_A
KDB-GND
+5V_ECO
IR
U_ECO
GR01
TFMT1330T
RR01
1K0
RR02
270R0
CR02
22U0
DR01
BZX55C5V1
GE01
JU5351-JM
RE03
100R0
DE01
BZX55C2V7


EQU FCB 1701 00
BJ10
VIDEO1
AUDIO
RJ02
6K8
CJ02
1U0
330P0
CJ04
CJ03
100K0
RJ04
RJ03
RJ01
6K8
CJ01
1U0
BJ04
L
GNDA
R
CHROMA
GNDV
VIDEO
BJ11
VIDEO1
CHROMA1
RJ20
220R0
75R
RJ22
BAV21
DJ20
RJ21
220R0
RJ23
BQ12
330R0
RQ05
RQ06
330R0
680R0
RQ01
RQ02
680R0
10U0
CQ01
CQ02
10U0
CQ05
470P0
CQ06
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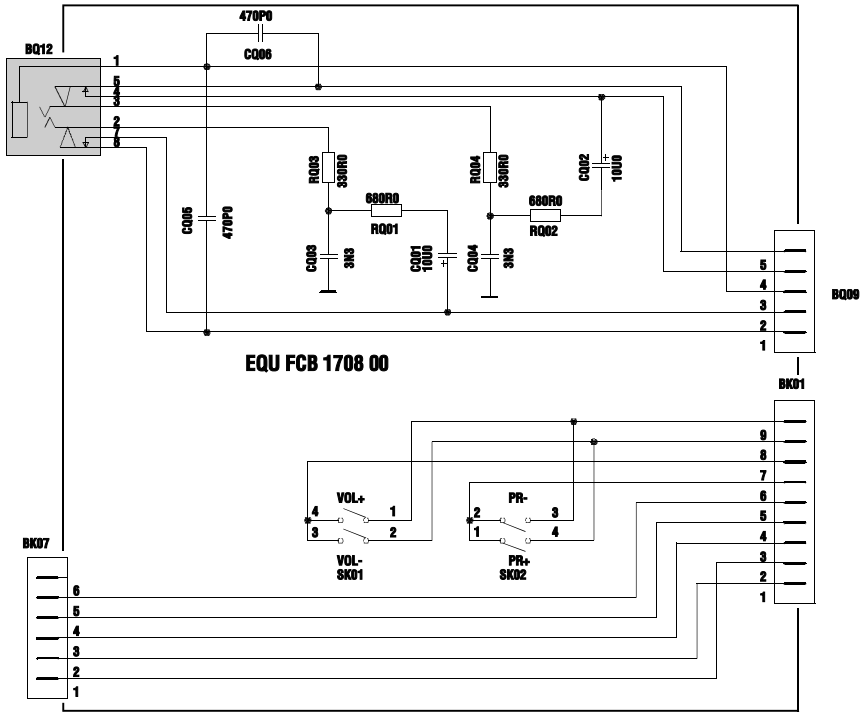
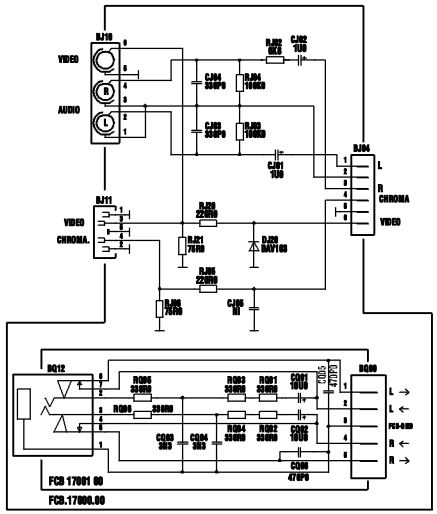
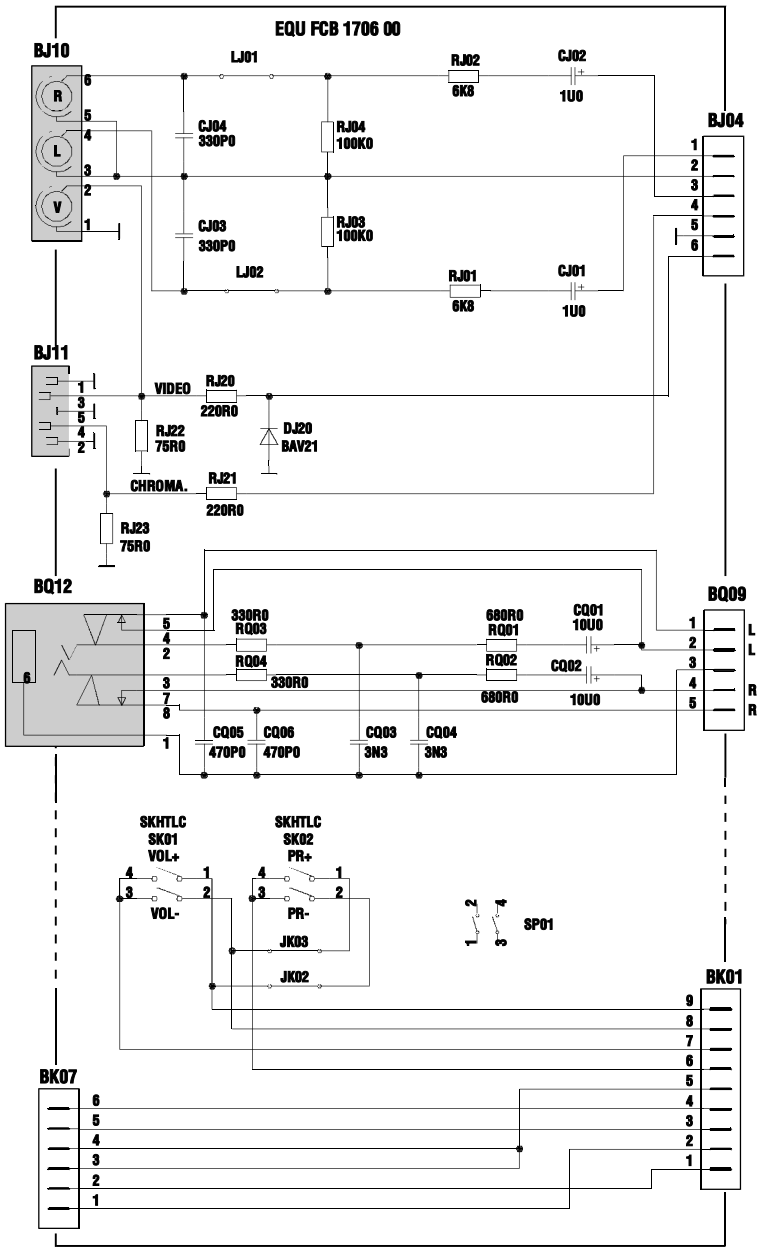
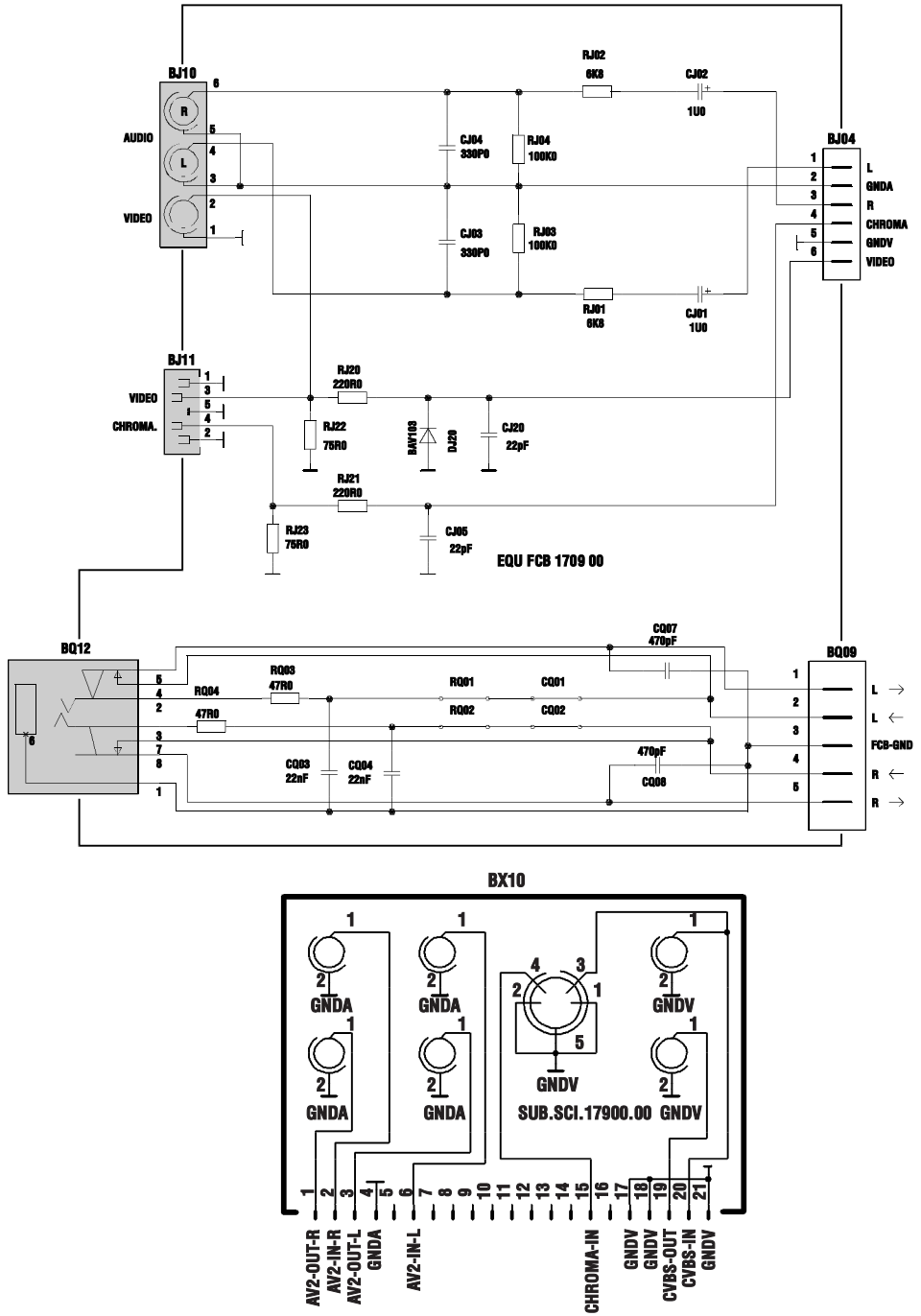
CQ03
3N3
CQ04
3N3
BQ09
GND-HS

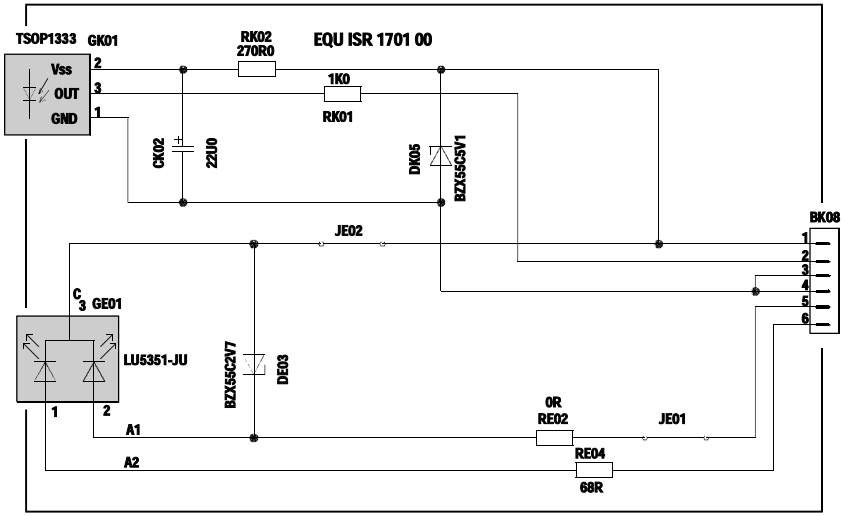

BQ12
470P0
CQ06
RQ03
330R0
RQ04
330R0
CQ02
10U0
680R0
RQ01
680R0
RQ02
CQ05
470P0
CQ03
3N3
CQ01
10U0
CQ04
3N3
BQ09
EQU FCB 1708 00
BK01
VOL+
PR-
VOL-
PR+
SK01
SK02
BK07

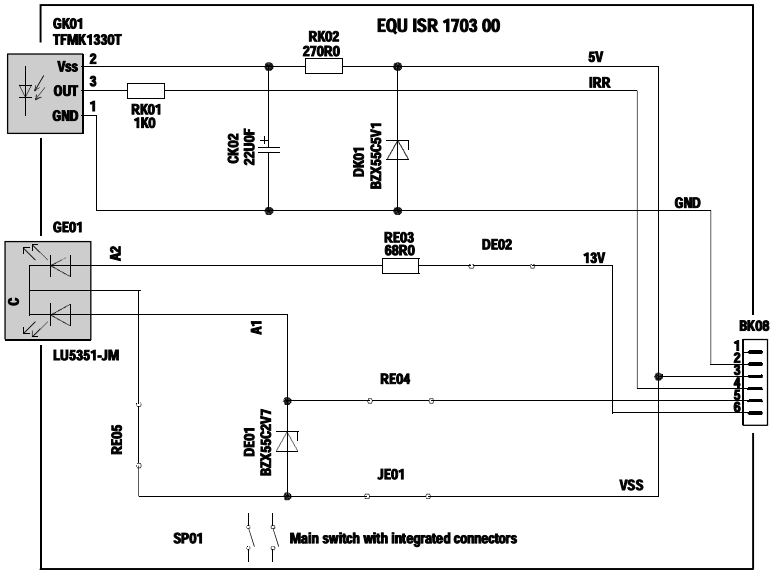

BJ10
VIDEO
AUDIO
BJ04
L
R
CHROMA
VIDEO
BJ11
VIDEO
CHROMA
BQ12
BQ09
FCB 17001 00
FCB.17000.00

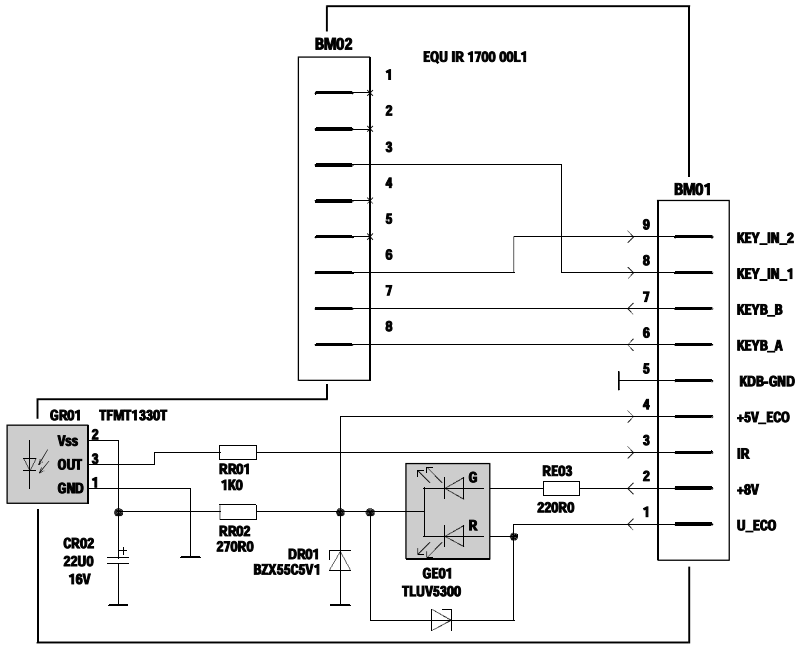

EQU FCB 1706 00
BJ10
LJ01
RJ02
6K8
CJ02
1U0
CJ04
330P0
RJ04
100K0
CJ03
330P0
RJ03
100K0
LJ02
RJ01
6K8
CJ01
1U0
BJ04
BJ11
VIDEO
RJ20
220R0
RJ22
75R0
DJ20
BAV21
CHROMA.
RJ21
220R0
RJ23
75R0
BQ12
BQ09
330R0
RQ03
RQ04
330R0
680R0
RQ01
RQ02
680R0
CQ01
10U0
CQ02
10U0
CQ05
470P0
CQ06
470P0
CQ03
3N3
CQ04
3N3
L
L
R
R
SKHTLC
SK01
VOL+
VOL-
SKHTLC
SK02
PR+
PR-
JK03
JK02
SP01
BK01
BK07


BJ10
AUDIO
VIDEO
RJ02
6K8
CJ02
1U0
CJ04
330P0
RJ04
100KD
CJ03
330P0
RJ03
100KD
RJ01
6K8
CJ01
1U0
BJ04
L
GNDA
R
CHROMA
GNDV
VIDEO
BJ11
VIDEO
CHROMA.
RJ20
220R0
RJ22
75R0
BAY103
DJ20
CJ20
22pF
RJ21
220R0
RJ23
75R0
CJ05
22pF
EQU FCB 1709 00
BQ12
CQ07
470pF
RQ03
47R0
RQ04
47R0
RQ01
RQ02
CQ01
CQ02
CQ03
22nF
CQ04
22nF
470pF
CQ08
BQ09
L
L
FCB-GND
R
R

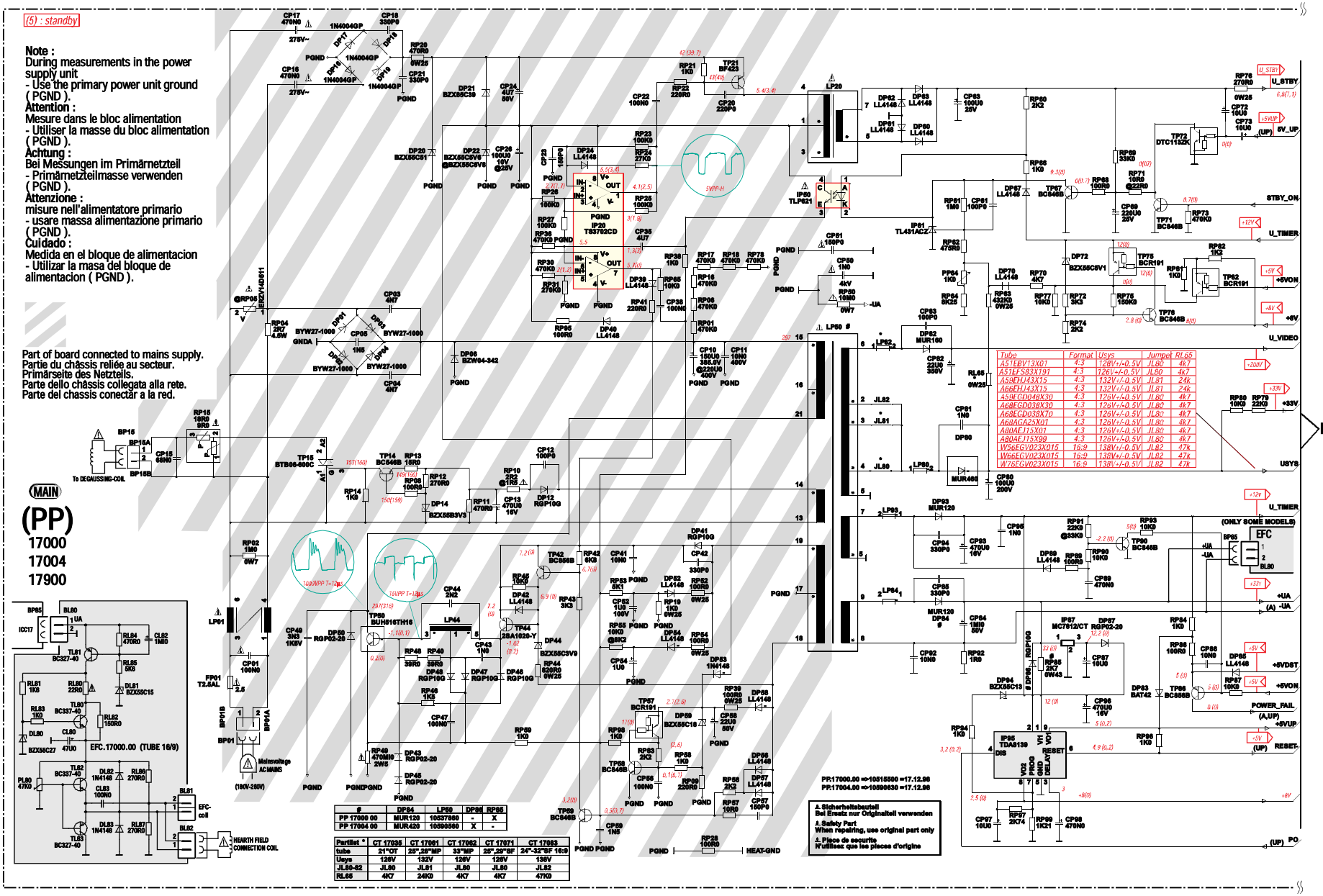
BX10
GNDA
GNDA
GNDV
GNDA
GNDA
GNDV
SUB.SCI.17900.00 GNDV
AV2-OUT-R
AV2-IN-R
AV2-OUT-L
GNDA
AV2-IN-L
CHROMA-IN
GNDV
GNDV
CVBS-OUT
CVBS-IN
GNDV


TSOP1333
GK01
Vss
OUT
GND
2
3
1
RK02
270R0
EQU ISR 1701 00
1K0
RK01
CK02
22U0
DK05
BZX55C5V1
JE02
BK08
C3 GE01
LU5351-JU
BZX55C2V7
DE03
1
2
A1
A2
0R
RE02
JE01
RE04
68R


GK01
TFMK1330T
EQU ISR 1703 00
RK02
270R0
5V
IRR
Vss
OUT
GND
RK01
1K0
CK02
22U0F
DK01
BZX55C5V1
GND
GE01
A2
RE03
68R0
DE02
13V
C
A1
BK08
LU5351-JM
RE04
RE05
DE01
BZX55C2V7
JE01
VSS
SP01
Main switch with integrated connectors


BM02
EQU IR 1700 00L1
BM01
KEY_IN_2
KEY_IN_1
KEYB_B
KEYB_A
KDB-GND
+5V_ECO
IR
+8V
U_ECO
GR01
TFMT1330T
Vss
OUT
GND
RR01
1K0
RR02
270R0
CR02
22U0
16V
DR01
BZX55C5V1
GE01
TLUV5300
G
R
RE03
220R0

POWER SUPPLY - ALIMENTATION - NETZTEIL - ALIMENTAZIONE - ALIMENTACIÓN

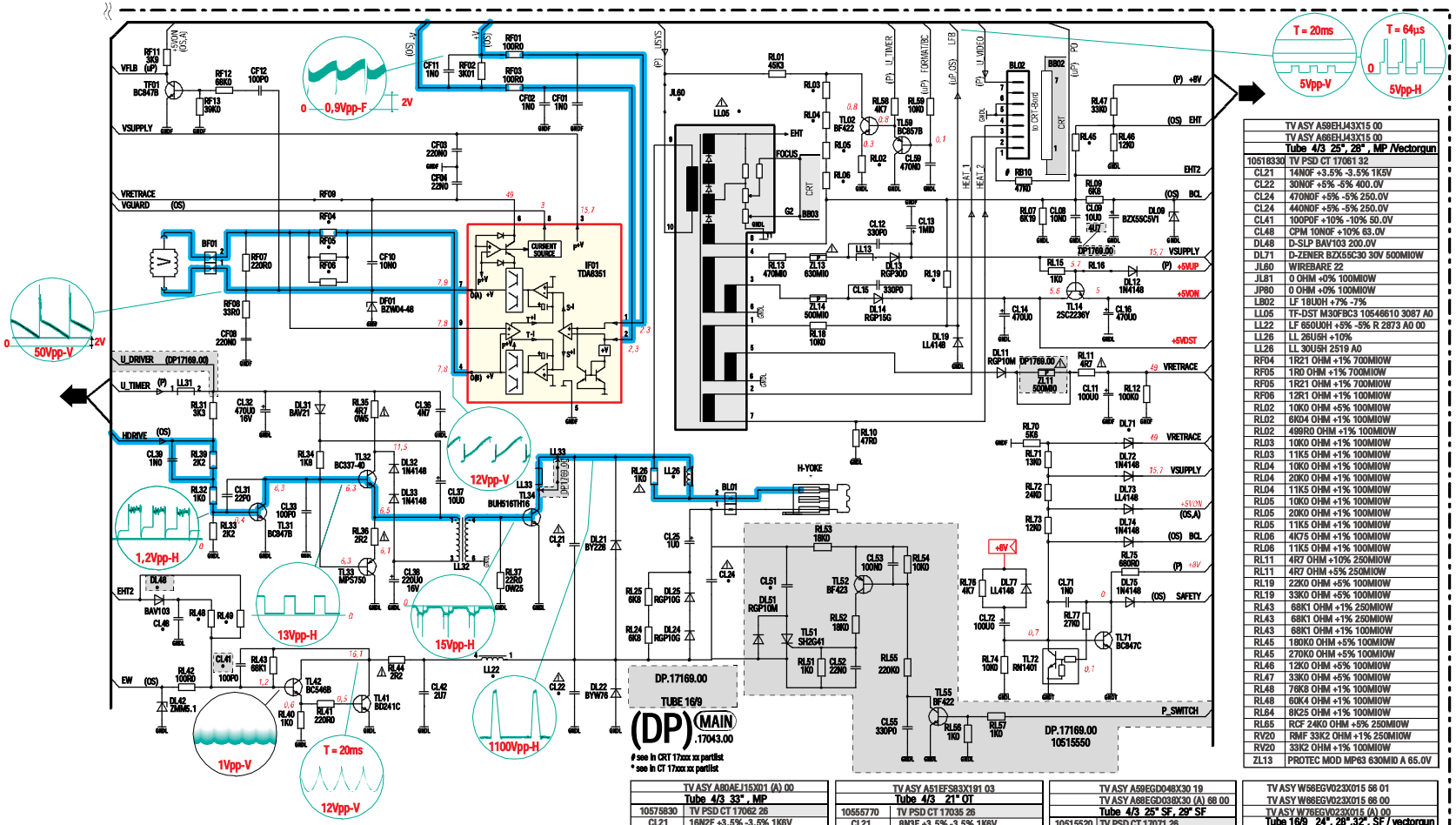


Tube	Format	Usys	Jumper	RL65
A51EBV13X01	4:3	128V+/-0.5V	JL80	4k7
A51EKS83X191	4:3	126V+/-0.5V	JL80	4k7
A59EHJ43X15	4:3	132V+/-0.5V	JL81	24k
A66EHJ43X15	4:3	132V+/-0.5V	JL81	24k
A59EGD048X30	4:3	126V+/-0.5V	JL80	4k7
A68EGD038X30	4:3	126V+/-0.5V	JL80	4k7
A68EGD038X70	4:3	126V+/-0.5V	JL80	4k7
A68AGA29X01	4:3	126V+/-0.5V	JL80	4k7
A80AEJ15X01	4:3	126V+/-0.5V	JL80	4k7
A80AEJ15X99	4:3	126V+/-0.5V	JL80	4k7
W56EGV023X015	16:9	138V+/-0.5V	JL82	47k
W66ECV023X015	16:9	138V+/-0.5V	JL82	47k
W7GEGV023X015	16:9	138V+/-0.5V	JL82	47k

#	DP54	LP59	DP56	RP65
PP 17000 00	MUR120	10537660	-	X
PP 17004 00	MUR420	10590660	X	-

Partilet °	CT 17036	CT 17061	CT 17062	CT 17071	CT 17083
tube	21"OT	25",28"MP	33"MP	25",29"SF	24"-32"SF 16:9
Usys	126V	132V	126V	126V	136V
JL80-82	JL80	JL81	JL80	JL80	JL82
RL65	4K7	24K0	4K7	4K7	47K0

SCANNING - BALAYAGE - ABLENKUNG - BARRIDO - SCANSIONE



TV ASY A59EHJ43X15 00 / TV ASY A66EHJ43X15 00 / Tube 4/3 25", 28" , MP /Vectorgun	
10518330	TV PSD CT 17061 32
CL21	14N0F +3.5% -3.5% 1K5V
CL22	30N0F +5% -5% 400.0V
CL24	470N0F +5% -5% 250.0V
CL24	440N0F +5% -5% 250.0V
CL41	100P0F +10% -10% 50.0V
CL48	CPM 10N0F +10% 63.0V
DL48	D-SLP BAV103 200.0V
DL71	D-ZENER BZX55C30 30V 500MI0W
JL60	WIREBARE 22
JL81	0 OHM +0% 100MI0W
JP80	0 OHM +0% 100MI0W
LB02	LF 18U0H +7% -7%
LL05	TF-DST M30FBC3 10546610 3087 A0
LL22	LF 650U0H +5% -5% R 2873 A0 00
LL26	LL 26U5H +10%
LL26	LL 30U5H 2519 A0
RF04	1R21 OHM +1% 700MI0W
RF05	1R0 OHM +1% 700MI0W
RF05	1R21 OHM +1% 700MI0W
RF06	12R1 OHM +1% 100MI0W
RL02	10K0 OHM +5% 100MI0W
RL02	6K04 OHM +1% 100MI0W
RL02	499R0 OHM +1% 100MI0W
RL03	10K0 OHM +1% 100MI0W
RL03	11K5 OHM +1% 100MI0W
RL04	10K0 OHM +1% 100MI0W
RL04	20K0 OHM +1% 100MI0W
RL04	11K5 OHM +1% 100MI0W
RL05	10K0 OHM +1% 100MI0W
RL05	20K0 OHM +1% 100MI0W
RL05	11K5 OHM +1% 100MI0W
RL06	4K75 OHM +1% 100MI0W
RL06	11K5 OHM +1% 100MI0W
RL11	4R7 OHM +10% 250MI0W
RL11	4R7 OHM +5% 250MI0W
RL19	22K0 OHM +5% 100MI0W
RL19	33K0 OHM +5% 100MI0W
RL43	68K1 OHM +1% 250MI0W
RL43	68K1 OHM +1% 250MI0W
RL43	68K1 OHM +1% 100MI0W
RL45	180K0 OHM +5% 100MI0W
RL45	270K0 OHM +5% 100MI0W
RL46	12K0 OHM +5% 100MI0W
RL47	33K0 OHM +5% 100MI0W
RL48	76K8 OHM +1% 100MI0W
RL48	60K4 OHM +1% 100MI0W
RL64	8K25 OHM +1% 100MI0W
RL65	RCF 24K0 OHM +5% 250MI0W
RV20	RMF 33K2 OHM +1% 250MI0W
RV20	33K2 OHM +1% 100MI0W
ZL13	PROTEC MOD MP63 630MI0 A 65.0V

TV ASY A80AEJ15X01 (A) 00 / Tube 4/3 33" , MP	
10575830	TV PSD CT 17062 26
CL21	16N2F +3.5% -3.5% 1K6V
CL22	30N0F +5% -5% 400.0V
CL24	560N0F +5% -5% 250.0V
CL41	100P0F +10% -10% 50.0V
CL48	10N0F +10% 63.0V
DL48	D-SLP BAV103 200.0V
DL71	D-ZENER BZX55C30 30V 500MI0W
JL60	WIREBARE 22
JL80	0 OHM +0% 100MI0W
LB02	LF 32U0H +4% -4%
LL05	TF-DST TDS29 TBD 11
LL22	LF 650U0H +5% -5% R 2873 A0 00
LL26	LL 26U5H +10%
RF05	1R21 OHM +1% 700MI0W
RF06	10R0 OHM +1% 100MI0W
RL02	6K04 OHM +1% 100MI0W
RL03	4K75 OHM +1% 100MI0W
RL04	4K75 OHM +1% 100MI0W
RL05	4K75 OHM +1% 100MI0W
RL06	6K81 OHM +1% 100MI0W
RL19	13K0 OHM +5% 100MI0W
RL45	150K0 OHM +5% 100MI0W
RL48	76K8 OHM +1% 100MI0W
RL49	560K0 OHM +5% 100MI0W
RL65	RCF 4K7 OHM +5% 250MI0W
RV20	RMF 23K7 OHM +1% 250MI0W

TV ASY A51EFS83X191 03 / Tube 4/3 21" OT	
10555770	TV PSD CT 17035 26
CL21	8N3F +3.5% -3.5% 1K6V
CL22	33N0F +5% -5% 1K0V
CL24	440N0F +5% -5% 250.0V
CL41	1N0F +10% -10% 50.0V
DL71	D-ZENER BZX55C24 24V 500MI0W
JL60	WIREBARE 22
JL80	0 OHM +0% 100MI0W
LB02	LF 18U0H +7% -7%
LL05	TF-DST M30FBC3 10555640 3087 A0
LL22	LF 650U0H +5% -5% R 2873 A0 00
LL26	LL 85U0H 2519 A0
RF05	1R5 OHM +1% 700MI0W
RF06	10R0 OHM +1% 100MI0W
RL02	6K04 OHM +1% 100MI0W
RL03	10K0 OHM +1% 100MI0W
RL04	10K0 OHM +1% 100MI0W
RL05	10K0 OHM +1% 100MI0W
RL06	3K32 OHM +1% 100MI0W
RL45	110K0 OHM +5% 100MI0W
RL49	60K4 OHM +1% 100MI0W
RL65	4K7 OHM +5% 250MI0W
RV20	23K7 OHM +1% 250MI0W

TV ASY A59EGD048X30 19 / TV ASY A68EGD030X30 (A) 68 00 / Tube 4/3 25" SF, 29" SF	
10515520	TV PSD CT 17071 26
CL21	16N2F +3.5% -3.5% 1K6V
CL22	30N0F +5% -5% 400.0V
CL24	510N0F +5% -5% 250.0V
CL41	100P0F +10% -10% 50.0V
CL48	10N0F +10% 63.0V
DL48	D-SLP BAV103 200.0V
DL71	D-ZENER BZX55C30 30V 500MI0W
JL60	WIREBARE 22
JL80	0 OHM +0% 100MI0W
LB02	LF 32U0H +4% -4%
LL05	TF-DST TDS29 TBD 13
LL22	LF 650U0H +5% -5%
LL26	LL 26U5H +10%
RF05	RMF 1R0 OHM +1% 700MI0W
RL02	6K8 OHM +5% 100MI0W
RL03	4K75 OHM +1% 100MI0W
RL04	4K75 OHM +1% 100MI0W
RL05	4K75 OHM +1% 100MI0W
RL06	4K75 OHM +1% 100MI0W
RL19	15K0 OHM +5% 100MI0W
RL45	180K0 OHM +5% 100MI0W
RL48	100K0 OHM +5% 100MI0W
RL49	300K0 OHM +5% 100MI0W
RL65	4K7 OHM +5% 250MI0W
RV20	33K2 OHM +1% 250MI0W

TV ASY W56EGV023X015 58 01 / TV ASY W68EGV023X015 68 00 / TV ASY W78EGV023X015 (A) 00 / Tube 16/9 24", 28", 32", SF / vectorgun	
10515530	TV PSD CT 17083 38
CL21	15N5F +3.5% -3.5% 1K6V
CL22	27N0F +5% -5% 400.0V
CL24	440N0F +5% -5% 250.0V
CL41	100P0F +10% -10% 50.0V
CL48	100N0F +5% 63.0V
CL51	290N0F +5% -5% 250.0V
DL48	D-SLP BAV103 200.0V
DL71	D-ZENER BZX55C24 24V 500MI0W
JL60	WIREBARE 22
JL82	0 OHM +0% 100MI0W
LB02	LF 32U0H +4% -4%
LL05	TF-DST TDS29 15314460 10
LL22	LF 650U0H +5% -5%
LL26	LL 30U5H 2519 A0
RF05	1R21 OHM +1% 700MI0W
RL02	4K99 OHM +1% 100MI0W
RL03	6K49 OHM +1% 100MI0W
RL04	6K49 OHM +1% 100MI0W
RL05	6K49 OHM +1% 100MI0W
RL06	2K37 OHM +1% 100MI0W
RL19	13K0 OHM +5% 100MI0W
RL45	390K0 OHM +5% 100MI0W
RL48	220K0 OHM +5% 100MI0W
RL49	180K0 OHM +5% 100MI0W
RL65	47K0 OHM +5% 250MI0W
RV20	100K0 OHM +1% 250MI0W

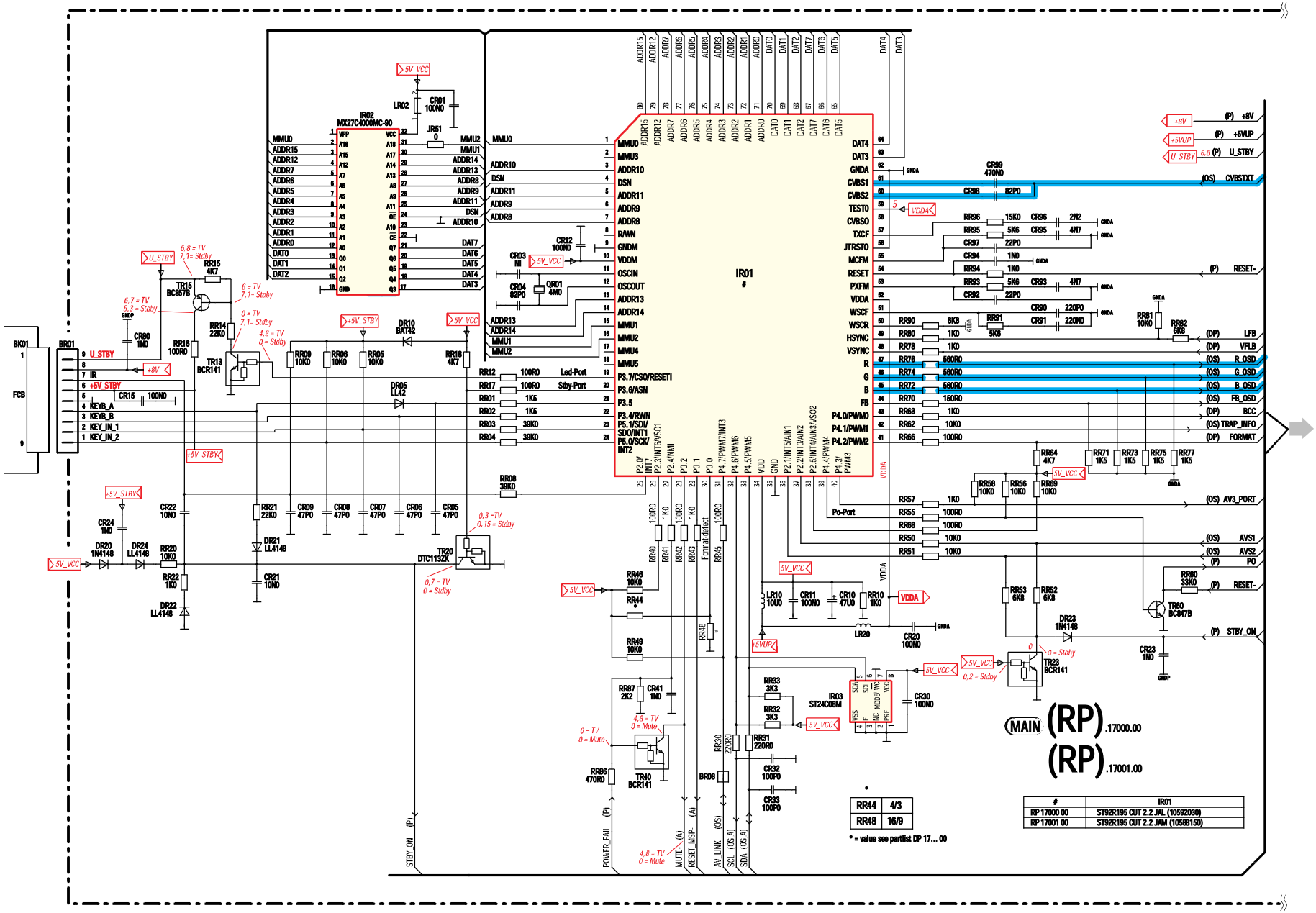
⚠ Indicates critical safety components, and identical components should be used for replacement. Only then can the operational safety be garanteed.

Le remplacement des éléments de sécurité (repérés avec le symbole ⚠) par des composants non homologués selon la Norme CEI 65 entraine la non-conformité de l'appareil.
Dans ce cas, la responsabilité du fabricant n'est plus engagée.

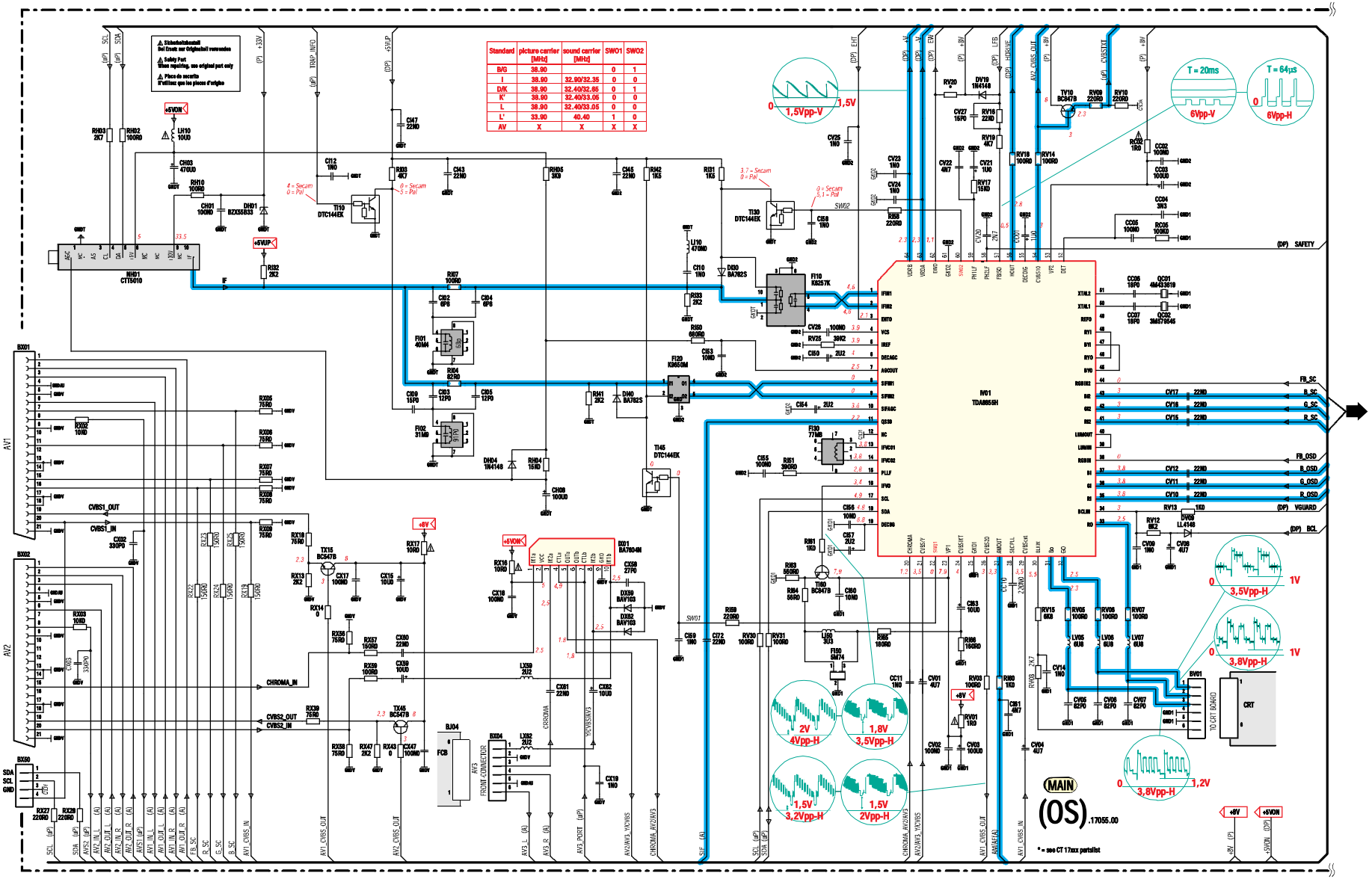
Wenn Sicherheitsteile (mit dem Symbol ⚠ gekennzeichnet) durch nicht normgerechte Teile ersetzt werden, erlischt die Haftung des Herstellers.

La sostituzione degli elementi di sicurezza (contrassegnati con il segno ⚠) con componenti non omologati secondo la norma CEI 65 comporta la non conformità dell'apparecchio.
In tal caso é "esclusa la responsabilità" del costruttore.

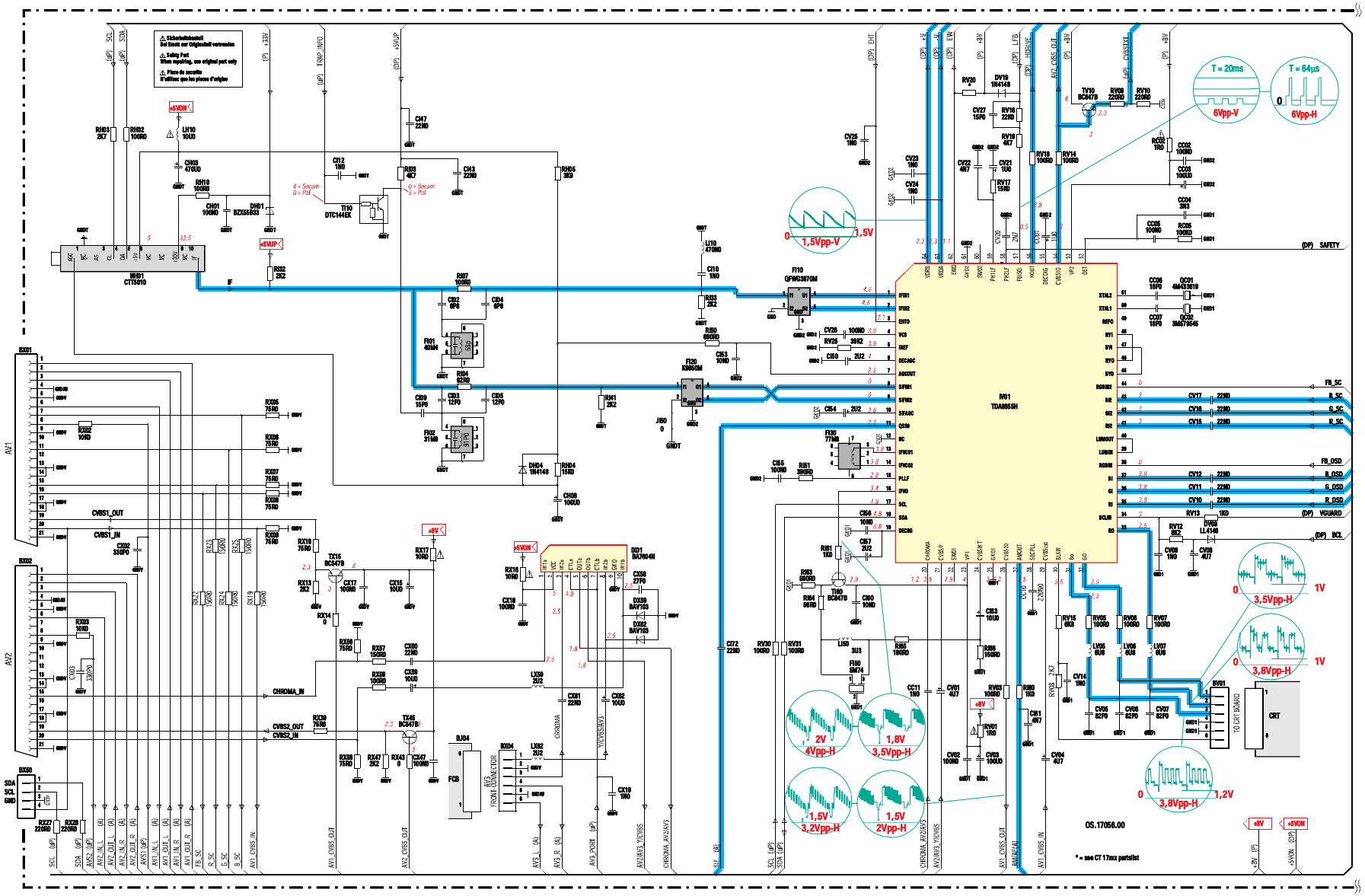
La subtitución de elementos de seguridad (marcados con el simbolo ⚠) por componentes no homologados segun la norma CEI 65, provoca la no conformidad del aparato.
En ese caso, el fabricante cesa de ser responsable.


IR01
IR02 MX27C4000MC-90
IR03 ST24C08M
BRD1
BK01
FCB
TR15 BC857B
TR13 BCR141
TR20 DTC113ZK
TR40 BCR141
TR60 BC847B
TR23 BCR141
Po-Port
Led-Port
Stby-Port
Format detect
MAIN (RP).17000.00
(RP).17001.00
RR44 4/3
RR48 16/9
* = value see partlist DP 17... 00
# IR01
RP 17000 00 ST92R195 CUT 2.2 JAL (10592030)
RP 17001 00 ST92R195 CUT 2.2 JAM (10588150)

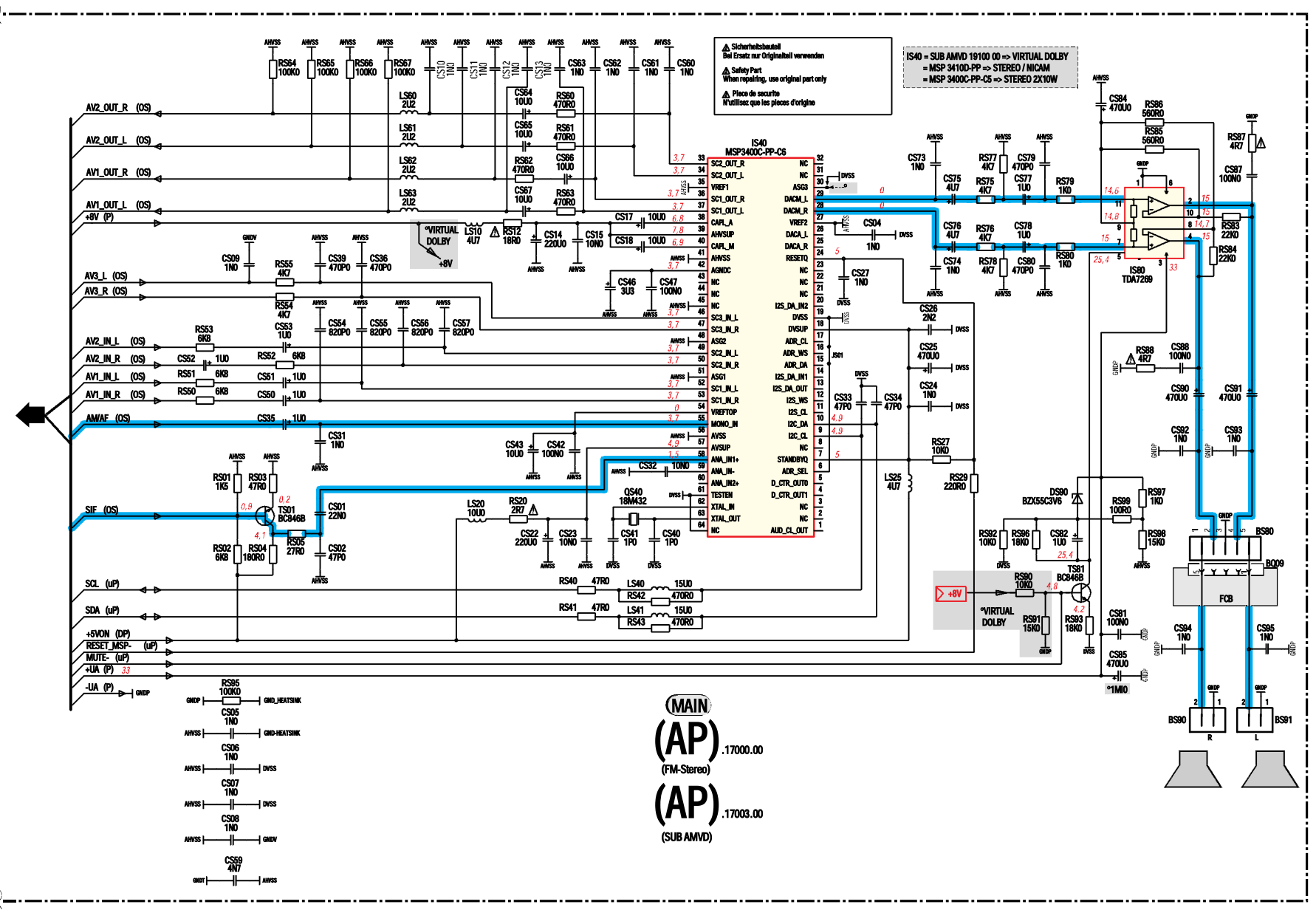
RF/FI/ SCART INTERFACE/VIDEO SIGNAL PROCESSING -HF/FI INTERFACE PERITELEVISION/TRAITEMENT LUMINANCE CHROMINANCE - HF/ZF/ SCART INTERFACE/VIDEO SIGNALVERARBEITUNG - RF/FI /PRESA PERITEL/ELABORAZIONE VIDEO - RF/FI /EUROCONECTOR / TRATAMENTO VIDEO



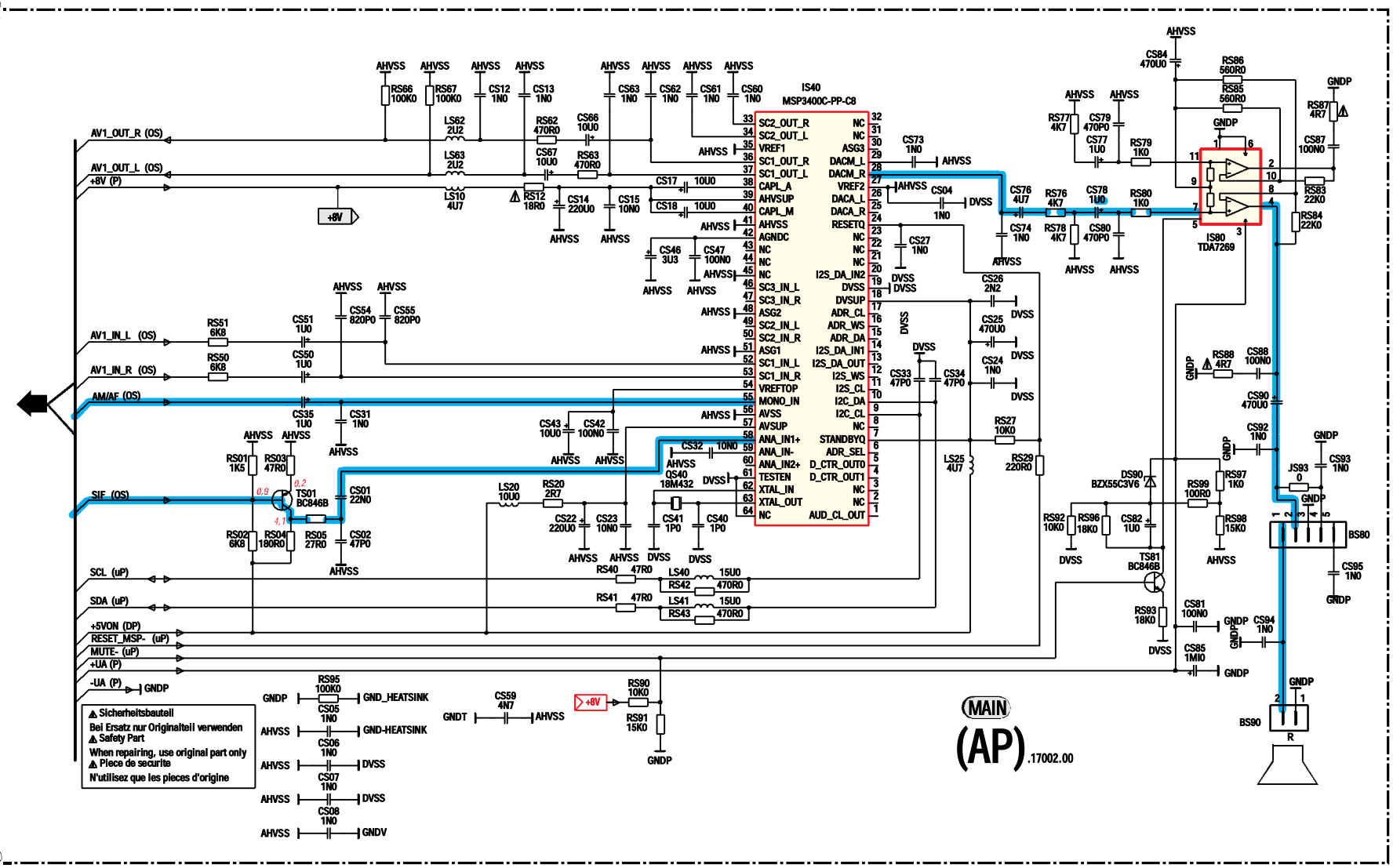
RF/FI/ SCART INTERFACE/VIDEO SIGNAL PROCESSING -HF/FI INTERFACE PERITELEVISION/TRAITEMENT LUMINANCE CHROMINANCE - HF/ZF/ SCART INTERFACE/VIDEO SIGNALVERARBEITUNG - RF/FI /PRESA PERITEL/ELABORAZIONE VIDEO - RF/FI /EUROCONECTOR/TRATAMENTO VIDEO



AMPLIFIER SCHEMATIC DIAGRAM - SCHEMA DE L'AMPLIFICATEUR - SCHALTBILD AUDIO-SIGNALVERABEITUNG - SCHEMA DELL' AMPLIFICATORE
ESQUEMA DEL AMPLIFICADOR
(STEREO)



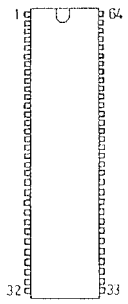
AMPLIFIER SCHEMATIC DIAGRAM - SCHEMA DE L'AMPLIFICATEUR - SCHALTBILD AUDIO-SIGNALVERABEITUNG - SCHEMA DELL' AMPLIFICATORE - ESQUEMA DEL AMPLIFICADOR
(MONO)



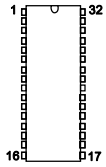
LIST OF ABBREVIATIONS - LISTE DES ABREVIATIONS- ABKÜRZUNGEN LISTA DELLE ABBREVIAZIONI - LISTA DE ABREVIACIONES

+USYS:	System voltage
+U_VIDEO:	Video drive voltage for the CRT board
+ STDBY_ ON:	Standby data (0V standby , 0.6v switched ON)
+5V DST:	5v unregulated voltage from the DST to supply the tuner and audio MSP device
+5V ON:	5v regulated voltage from the DST to supply the tuner and audio MSP device
+5V UP :	Microprocessor supply voltage
BCL:	Beam current limiting information
CVBS:	Composite video / luminance signal
CVBS_OUT:	Composite video output
CVBS_TXT:	Composite video for teletext extraction
DEGAUSS:	Degauss signal
EW :	East / West
FORMAT / BC:	Full white control DATA depending on 16/9 selected format
HDRV:	Horizontal deflection signal
HTR1 / HTR2:	Heater voltage from the DST to CRT PCB
LFB:	Line Fast Blanking
MUTE :	Mutes audio amplifiers
PO:	“Power ON “ IP95 : reset activated and output = 8v “PO” = 5v when TV is working in normally
POWER_FAIL:	Detection of mains supply and deflection stage failures
RESET:	Microprocessor reset signal
SAFETY:	Safety information from the deflection stage
SCL:	Serial Clock
SDA :	Serial Data
SIF:	Sound IF
TRAP_INFO:	31.4Mhz IF trap activation
U_ STANDBY:	Standby voltage
U_DRIVER:	Horizontal sync signal from TDA8855H
U_TIMER:	11v voltage used during “Switch ON “ phase and “Wake Up“ mode
V FLB:	Vertical flyback reference for the microprocessor
V GUARD:	Safety data generated by the vertical amplifier TDA 8351
V_RETRACE:	42 / 48volts (depending on tube type) generated by the DST and used for vertical blanking
V_SUPPLY:	13.5 to 15.5 volts (depending on tube type) generated by the DST

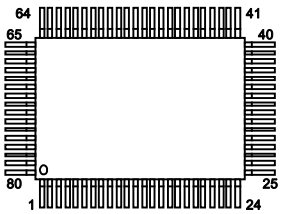
INTEGRATED CIRCUITS AND TRANSISTORS OUTLINE -
CIRCUITS INTEGRES ET TRANSISTORS
INTEGRIERTE SCHALTUNGEN UND TRANSISTOREN -
CIRCUITI INTEGRATI TRANSISTOR
CIRCUITOS INTEGRADOS Y TRANSISTORES



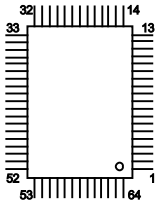
MPS3400C-PP-C6



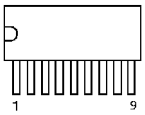
MX27C200MC-12



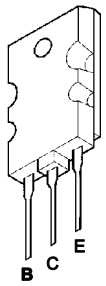
ST92R195



TDA8855H



TDA8351



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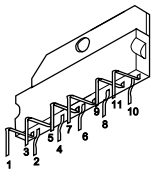
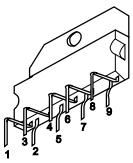
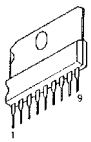


TDA7269



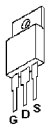
TDA6107Q



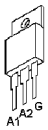
TDA 8139

BC 847B
BC 857B
BCR141
BCR191
DTC113ZK
DTC144EK
TN1401

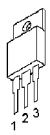
ST24C08-M
TS3702CD



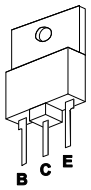
STP6 NA60F1



BT806 -600C



MC7812/CT



BD241C

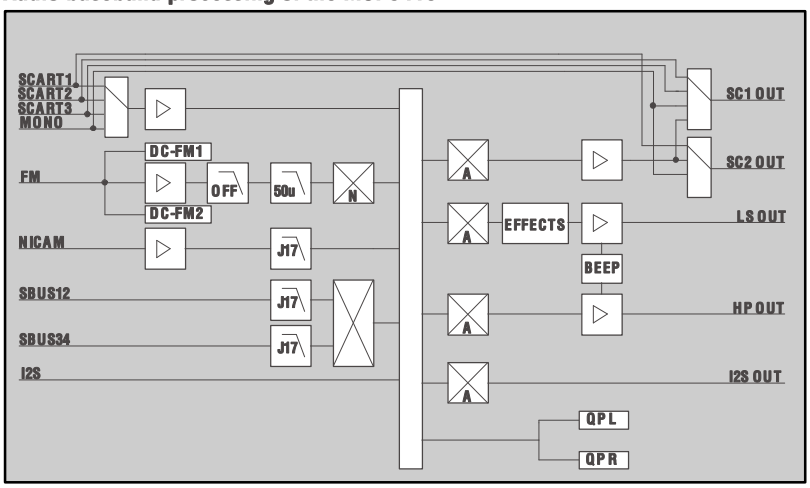
BC 337
BC 546B
BC 547B

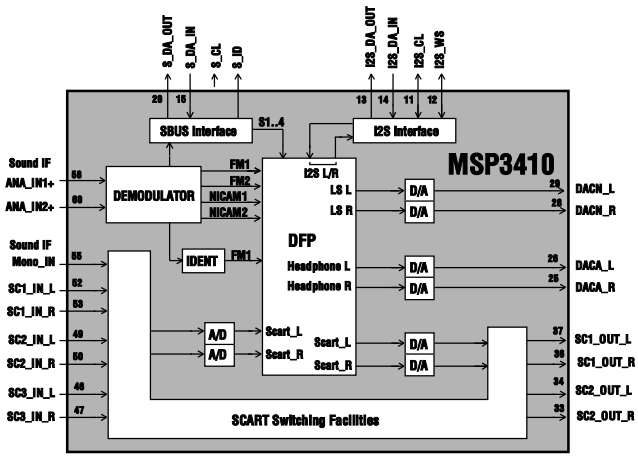
BF 422
BF423
2SA1020Y
2SC2236Y

MPS750

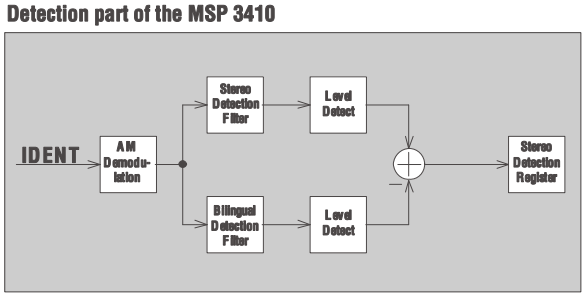
INTEGRATED CIRCUITS BLOCK DIAGRAMS - SYNOPTIQUES INTERNES DES CIRCUITS INTEGRES - INTEGRIERTE SCHALTUNGEN BLOCKSCHALTBILDER SCHEMA A BLOCCHI DEI CIRCUITI INTEGRATI - VISTA INTERNA DE LOS CIRCUITOS INTEGRADOS

Audio baseband processing of the MSP3410

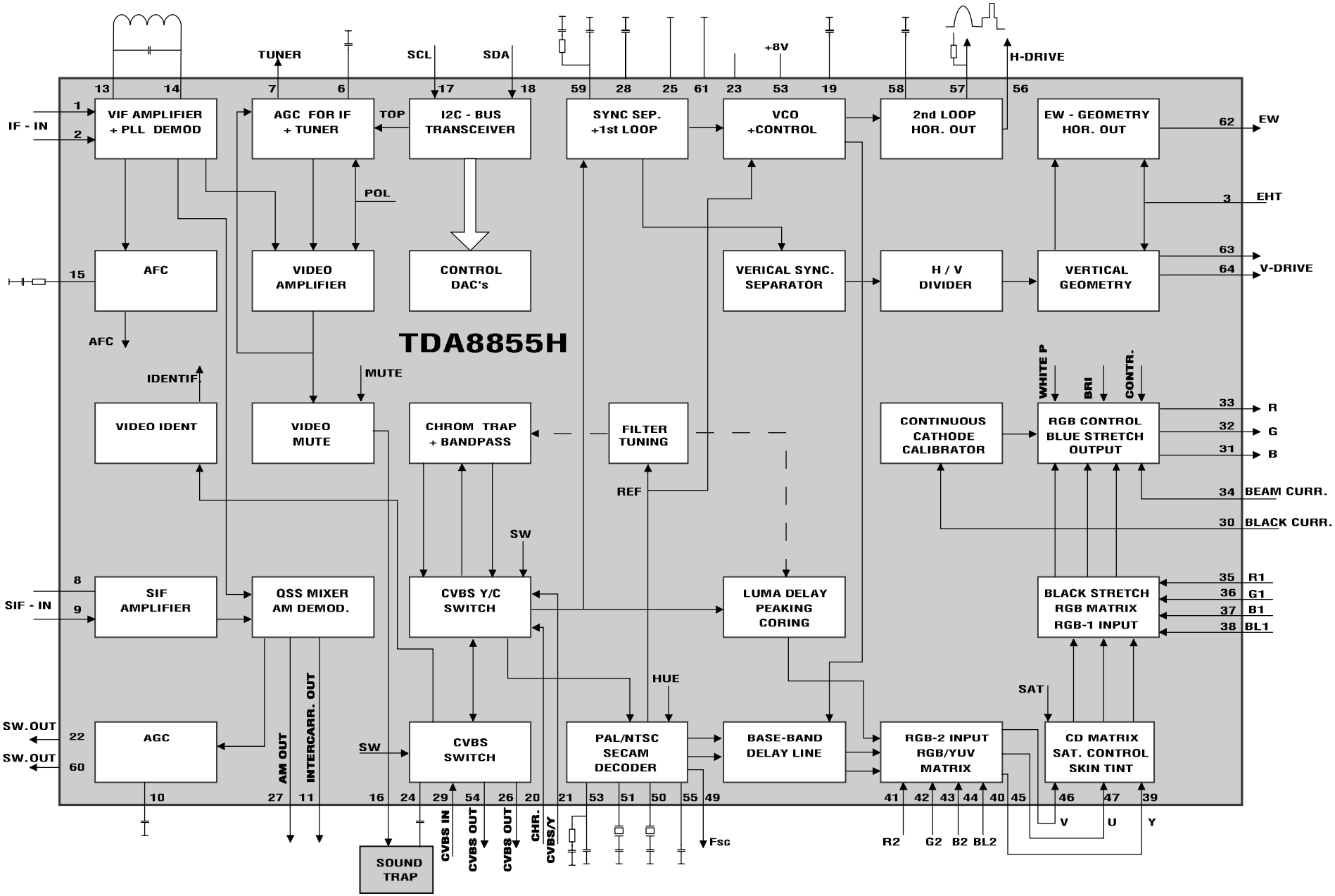




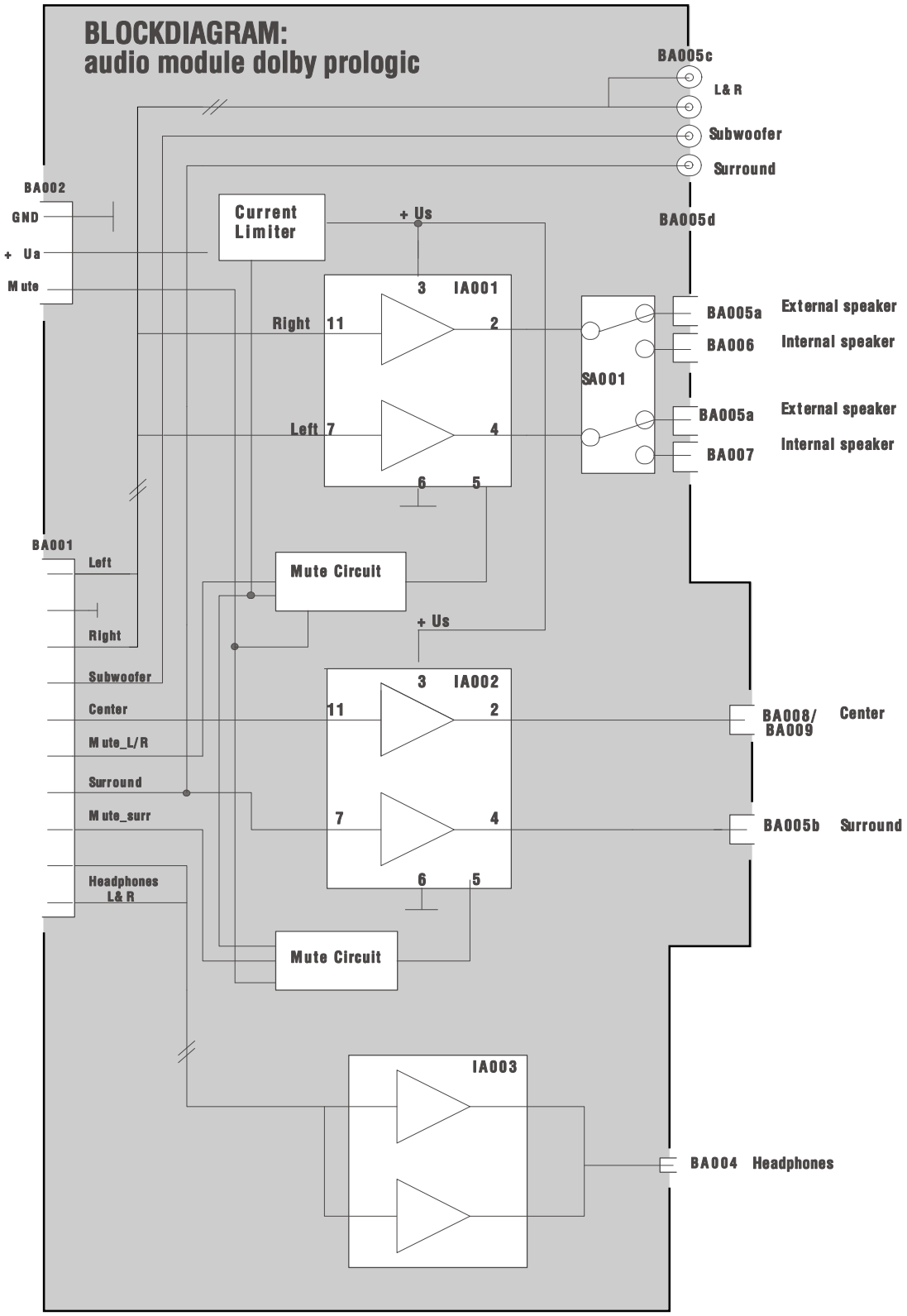
Detection part of the MSP 3410



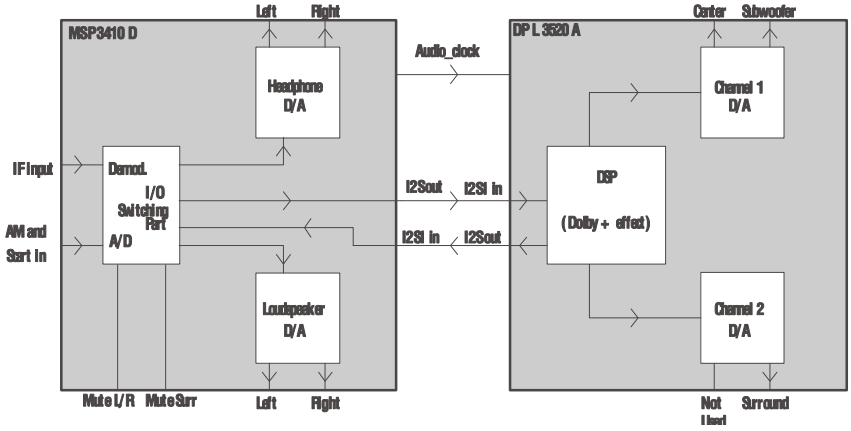
IV01 TDA 8855H



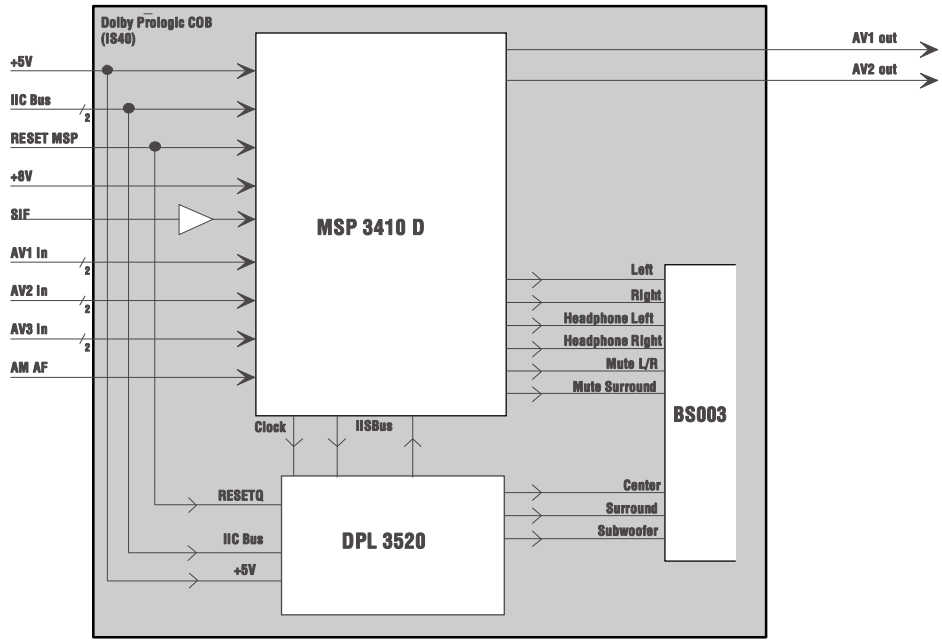
BLOCK DIAGRAM (AUDIO MODULE DOLBY PROLOGIC)
SCHEMA SYNOPTIQUE (AUDIO MODULE DOLBY PROLOGIC)
BLOCKSCHALTBILD (AUDIO MODULE DOLBY PROLOGIC)
SCHEMA A BLOCCI (AUDIO MODULE DOLBY PROLOGIC)
ESQUEMA DE BLOQUES (AUDIO MODULE DOLBY PROLOGIC)



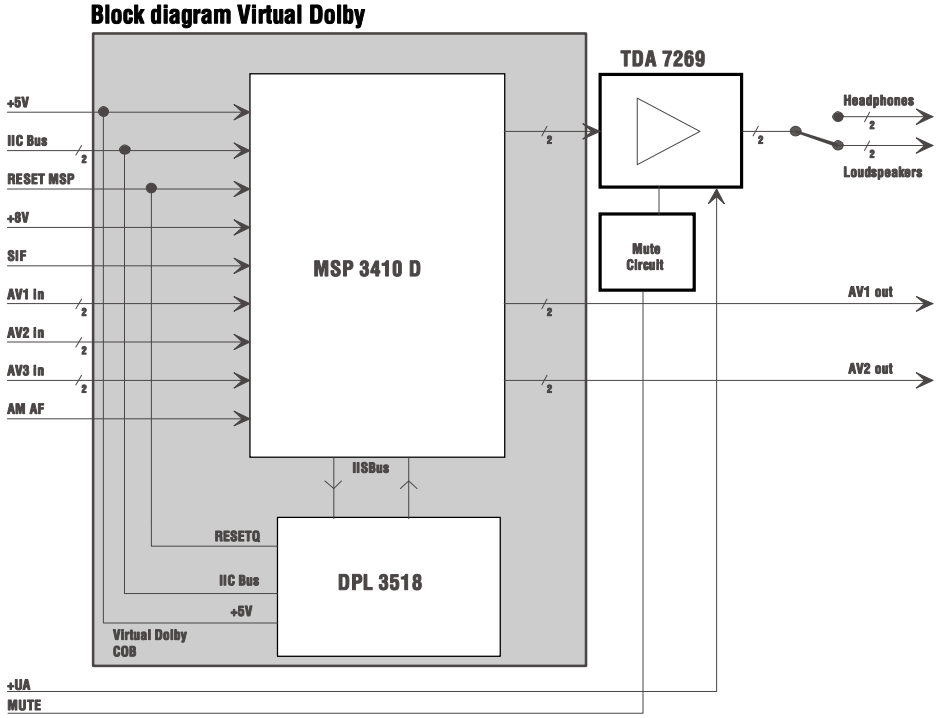
Interface requirement audio part with Dolby Prologic



Block diagram Dolby Prologic



Block diagram Virtual Dolby



EACEM-IRIS REPAIR CODING SYSTEM

CONDITION CODE | MAIN SYMPTOM CODE | EXTENDED SYMPTOM CODE (*1)

1	CONSTANTLY
2	INTERMITTENTLY
3	AFTER A WHILE
4	IN A HOT ENVIRONMENT
5	IN A COLD ENVIRONMENT
6	WHEN SWITCHING
7	UNDER VIBRATION
8	IN A DAMP/WET/ RAINY/SNOWY ENVIRONMENT
9	IN A DRY ENVIRONMENT
A	AFTER BEING DROPPED/ TRANSPORT DAMAGE
B	AFTER LIGHTNING STRIKE
C	ONLY CERTAIN STATIONS/ SOFTWARE/ MODE/ CHANNELS/ FREQUENCY BAND
D	ONLY ON CERTAIN STANDARDS
E	ONLY ON ONE CHANNEL
F	ONLY WITH CERTAIN INPUT(S)
G	ONLY ON CERTAIN OUTPUT(S)
H	IN STANDBY/OFF MODE
J	AT EDIT POINT
K	WHEN INTERCONNECTED
L	LIQUID CONTAMINATION
M	FOR A SHORT WHILE AFTER SWITCH-ON
N	AFTER MAKING A COPY
O	UNDER STRESSED CONDITIONS / HIGH LOAD
P	AT SWITCH-OFF

		1	NO ACTION	2	LEVEL	3	QUALITY	4	NOISE
1	GENERAL	110	POWER PROBLEM OR NOT OPERATING	120	CHARGING PROBLEM	130	DISPLAY FUNCTION PROBLEM	140	ABNORMAL NOISE
		111	NO POWER	121	NO BATTERY CHARGING	131	FAULTY DISPLAY	141	CRT DISCHARGING NOISE
		112	NO POWER WHEN USING AC-ADAPTER	122	INCOMPLETE BATTERY CHARGE	132	FAULTY LAMP/LED OPERATION	142	EHT DISCHARGING NOISE
		113	NO POWER WHEN USING DRY BATTERIES	123	CHARGING TIME TOO LONG	133	FAULTY LEVEL METER OPERATION	143	NOISY CABINET/CRACKING TRAYS
		114	NO POWER WHEN USING RECHARGEABLE BATTERIES	12X	OTHER 'CHARGING' PROBLEM	134	FAULTY ON-SCREEN DISPLAY OPERATION	144	NOISY TRANSFORMER/HUMMING
		115	NO POWER FROM SOLAR CELL			135	ELECTRONIC TUNING DISPLAY FAULT	145	NOISY COMPONENT(S)
		116	NO POWER WHEN USING A CAR BATTERY			136	MECHANICAL TUNING DISPLAY FAULT	146	RATTLE
		117	SHORT OPERATION TIME/SHORT BATTERY LIFE			137	FAULTY TIME CODE DISPLAY	147	CLICKING
		118	POWER-OFF FUNCTION NOT WORKING			138	FAULTY ALARM/ERROR DISPLAY	148	CLOCK NOISE
		119	NO SWITCH-ON FROM STANDBY			139	DISPLAY DIM/TOO DARK	149	CRACKING
		11A	POWERS UP, BUT NO OPERATION			13A	UNUSUAL OR INCORRECT MESSAGE IN DISPLAY	14A	WHISTLING
		11B	CYCLIC POWER ON/OFF			13B	NO BACKLIGHT	14X	OTHER 'ABNORMAL' NOISE
		11C	BLOWING EXTERNAL (MAINS) FUSE			13C	BEEPS, NO DISPLAY		
		11D	SET SWITCHES OFF BY ITSELF			13D	WARNING LIGHT DOES NOT WORK		
		11E	BACKUP BATTERY PROBLEM			13E	WARNING LIGHT LIGHTS UP		
		11F	NOT OPERATING			13X	OTHER 'DISPLAY FUNCTION' PROBLEM		
		11G	NO AUTOMATIC SWITCH ON/OFF						
		11H	PROTECTION SWITCH/FUSE IN SET TRIGGERS						
		11J	RECHARGEABLE BATTERY NOT RECOGNIZED						
		11X	OTHER 'POWER' PROBLEM						
2	COMMUNICATION	210	NO RECEPTION OR CONNECTION	220	POOR RECEPTION OR CONNECTION	230	TRANSMISSION/CONNECTION PROBLEM	240	NOISY RECEPTION/TRANSMISSION
		211	NO AM RECEPTION	221	POOR AM RECEPTION	231	NO TRANSMISSION/CONNECTION	241	LINE NOISE
		212	NO FM RECEPTION	222	POOR FM RECEPTION	232	POOR TRANSMISSION/CONNECTION	242	OSCILLATION
		213	NO SW RECEPTION	223	POOR SW RECEPTION	233	TRANSMISSION LEVEL TOO HIGH	243	INTERSTATION INTERFERENCE
		214	NO VHF RECEPTION	224	POOR VHF RECEPTION	234	NO TRANSMISSION BETWEEN BASE UNIT AND HANDSET	24X	OTHER 'NOISY RECEPTION/TRANSMISSION' PROBLEM
		215	NO UHF RECEPTION	225	POOR UHF RECEPTION	235	POOR TRANSMISSION BETWEEN BASE UNIT AND HANDSET		
		216	NO BS RECEPTION	226	POOR BS RECEPTION	236	NO IR TRANSMISSION		
		217	NO CS RECEPTION	227	POOR CS RECEPTION	237	ONE-SIDED CONNECTION		
		218	NO HDTV RECEPTION	228	POOR HDTV RECEPTION	238	MODEM HANGS UP IMMEDIATELY ONCE CONNECTED		
		219	NO GPS/QPS RECEPTION	229	POOR GPS/QPS RECEPTION	239	MODEM DROPS LINE DURING CONNECTION		
		21A	NO RECEPTION OF DIGITAL BROADCASTING	22A	POOR RECEPTION OF DIGITAL BROADCASTING	23X	OTHER 'TRANSMISSION/CONNECTION' PROBLEM		
		21B	NO IR RECEPTION	22B	POOR IR RECEPTION				
		21C	NO DIAL TONE	22X	OTHER 'POOR RECEPTION' PROBLEM				
		21D	NO MODEM/FAX CONNECTION						
		21E	MODEM NOT ANSWERING/NO CARRIER						
		21F	NO NETWORK CONNECTION/NETWORK INITIALIZATION FAILS						
		21X	OTHER 'NO RECEPTION' PROBLEM						
3	PICTURE	310	NO PICTURE	320	PICTURE LEVEL PROBLEM	330	PICTURE QUALITY PROBLEM	340	PICTURE NOISE
		311	NO PICTURE IN E TO E MODE	321	PICTURE TOO DARK	331	POOR PICTURE RESOLUTION	341	SNOWY PICTURE
		312	NO PICTURE IN PLAYBACK MODE	322	PICTURE TOO BRIGHT	332	POOR FOCUS	342	DOT NOISE OR DROPOUT ON PICTURE
		313	NO PICTURE IN VIEWFINDER	323	CONTRAST TOO LOW	333	RINGING ON PICTURE	343	NOISE BARS ON PICTURE
		314	NO PICTURE, ONLY RASTER	324	CONTRAST TOO HIGH	334	EXCESSIVE SMEAR/LAG	344	BLANKING LINES ON PICTURE
		315	NO RASTER, BLACK PICTURE	325	SATURATED WHITE OR BLACK LEVEL	335	POOR LINEARITY OR GEOMETRY	345	BEATING ON PICTURE
		316	ONLY HORIZONTAL LINE	326	SHADING ON PICTURE	336	PICTURE SIZE INCORRECT	346	GHOSTING ON PICTURE
		317	ONLY VERTICAL LINE	327	ONLY PARTIAL PICTURE	337	INCORRECT CENTRING OF PICTURE	347	VCR HEAD SWITCHING NOISE ON PICTURE
		318	NO PICTURE IN LCD	32X	OTHER 'PICTURE LEVEL' PROBLEM	338	PICTURE SLANTED	348	OVERMODULATION NOISE
		319	NO 2nd (OR HIGHER) MONITOR DISPLAY			339	V-SIZE INCORRECT	349	MOIRÉ
		31X	OTHER 'NO PICTURE' PROBLEM			33A	H-SIZE INCORRECT	34A	MOSAIC NOISE
						33X	OTHER 'PICTURE QUALITY' PROBLEM	34B	SCRAMBLED PICTURE
								34X	OTHER 'PICTURE NOISE' PROBLEM
4	COLOUR	410	NO COLOUR	420	COLOUR LEVEL PROBLEM	430	POOR COLOUR QUALITY	440	NOISY COLOUR
		411	NO COLOUR IN E TO E MODE	421	WEAK COLOUR	431	SOME OR ALL COLOURS MISSING	441	COLOUR NOISE ON A BLACK & WHITE PICTURE
		412	NO COLOUR IN PLAYBACK MODE	422	EXCESSIVE COLOUR	432	POOR WHITE BALANCE		
		413	NO COLOUR IN VIEWFINDER	42X	OTHER 'COLOUR LEVEL' PROBLEM	433	HUE PROBLEM	442	COLOUR STREAKING
		414	NO COLOUR IN PART OF PICTURE			434	PURITY ERROR	443	COLOUR BARS ON PICTURE
		41X	OTHER 'NO COLOUR' PROBLEM			435	LANDING ERROR/WHITE UNIFORMITY	44X	OTHER 'COLOUR NOISE' PROBLEM
						436	CONVERGENCE ERROR		
						437	REGISTRATION ERROR		
						438	PITCH MOIRÉ/RAINBOW PATTERN		
						439	COLOUR SHIFT		
						43X	OTHER 'COLOUR QUALITY' PROBLEM		
5	AUDIO	510	NO AUDIO	520	AUDIO LEVEL PROBLEM	530	AUDIO QUALITY	540	NOISY AUDIO
		511	NO SOUND IN E TO E MODE	521	LOW AUDIO LEVEL	531	POOR FREQUENCY RESPONSE	541	HUM
		512	NO PLAYBACK OF OUTGOING MESSAGE(S)	522	EXCESSIVE AUDIO LEVEL	532	DISTORTED AUDIO	542	HISS
		513	NO PLAYBACK OF INCOMING MESSAGE(S)	523	BALANCE PROBLEM	533	NO OR POOR TREBLE	543	CROSSTALK
		514	NO AUDIO PLAYBACK	524	FADER PROBLEM	534	NO OR POOR BASS	544	STATIC, POP OR CLICK NOISE
		515	NO SOUND FROM HANDSET	525	AUDIO LEVEL REMAINING/NO MUTING	535	EARPHONE/HEADPHONE AUDIO POOR	545	BUZZ
		516	NO SOUND FROM SPEAKER	52X	OTHER 'AUDIO LEVEL' PROBLEM	53X	OTHER 'AUDIO QUALITY' PROBLEM	546	SCRATCHING NOISE
		517	NO SOUND FROM EARPHONE/HEADPHONE					547	IGNITION NOISE
		518	NO MICROPHONE SOUND					548	WHISTLING/MULTIPATH NOISE
		519	NO SOUND FROM DIGITAL OUTPUT					549	DATA/DIGITAL NOISE
		51X	OTHER 'NO AUDIO' PROBLEM					54X	OTHER 'AUDIO NOISE' PROBLEM
6	MECHANISM	610	NO MECHANICAL OPERATION	620	IRREGULAR MECHANICAL OPERATION	630	SPEED PROBLEM	640	MECHANICAL NOISE
		611	NO ROTATION OF MOTOR/DISC	621	IRREGULAR ROTATION	631	SPEED TOO FAST	641	ROTATION NOISE/DRUM NOISE
		612	NO FORWARD OPERATION	622	IRREGULAR FORWARD MODE	632	SPEED TOO SLOW	642	MOTOR NOISE
		613	NO REVERSE OPERATION	623	IRREGULAR REVERSE OPERATION	633	SPEED UNADJUSTABLE	643	WIND/AIR NOISE
		614	NO FAST FORWARD OR REWIND FUNCTION	624	IRREGULAR FAST FORWARD OR REWIND FUNCTION	63X	OTHER 'SPEED' PROBLEM	644	SQUEALING
		615	NO LOADING	625	IRREGULAR LOADING OF MEDIA			645	FAN NOISE
		616	NO UNLOADING OR EJECTING	626	IRREGULAR UNLOADING OR EJECTING			646	DISC SCRAPING
		617	NO AUTO SHUT-OFF OPERATION	627	IRREGULAR AUTO SHUT-OFF OPERATION			647	NOISY TAPE LOADING
		618	TONEARM DOES NOT MOVE	628	IRREGULAR TONEARM MOVEMENT			648	GEAR NOISE
		619	DISC NOT BEING EJECTED	629	IRREGULAR EJECTION OF DISC			649	CONTROL OR SWITCH NOISY
		61A	MAGAZINE OR MODULE LOADING/UNLOADING	62A	IRREGULAR DIRECTION CHANGE			64A	GRINDING
		61B	CONTROL/SWITCH NOT WORKING	62B	FAULTY DISC CHANGE OPERATION			64B	RUMBLING
		61X	OTHER 'NO MECHANICAL OPERATION' PROBLEM	62X	OTHER 'IRREGULAR MECHANICAL OPERATION' PROBLEM			64C	VIBRATION NOISE
								64X	OTHER 'MECHANICAL NOISE' PROBLEM
7	DATA PROCESSING	710	NO DATA PROCESSING OPERATION	720	FAULTY DATA PROCESSING OPERATION	730	DATA DISPLAY PROBLEM	740	KEYBOARD/POINTING DEVICE
		711	NO INITIAL SCREEN	721	INCORRECT DATA	731	INCORRECT CHARACTER DISPLAY	741	MOUSE/TRACKBALL/TRACKPAD NOT WORKING
		712	SYSTEM DOES NOT RESET	722	SYSTEM RESET WHILE BEING USED	732	MISSING DISPLAY CHARACTERS		
		713	SYSTEM DOES NOT BOOT UP	723	SYSTEM LOCKS OUT/CRASHES/HANGS	733	FAULTY GRAPHIC DISPLAY	742	KEYBOARD LOCKS UP
		714	NO OPERATION FROM PLUG-IN MODULE/PERIPHERAL	724	FAULTY OPERATION OF PLUG-IN MODULE	734	FAULTY SWITCHING BETWEEN GRAPHIC/ CHARACTER MODE	743	POINTING DEVICE LOCKS UP
		715	NO KEYBOARD OPERATION	725	FAULTY KEYBOARD OPERATION	735	FAULTY PROMPT/CURSOR OPERATION	744	STICKY KEY(S)
		716	NO OPERATION FROM OTHER INPUT/OUTPUT DEVICE	726	FAULTY OPERATION OF OTHER INPUT/OUTPUT DEVICE	736	DATA DISPLAY COLOUR INCORRECT	745	INOPERATIVE KEY(S)
		717	NO DATA STORAGE OPERATION	727	FAULTY DATA STORAGE OPERATION	737	NO PAGING OR SCROLL MODE	746	POINTING DEVICE NOT TRACKING PROPERLY
		718	NO DATA COMMUNICATION	728	FAULTY DATA COMMUNICATION	73X	OTHER 'DATA DISPLAY' PROBLEM	747	POINTING DEVICE JITTERY
		719	ERROR MESSAGE DISPLAY	729	MEMORY ERROR			748	LEFT- OR RIGHT CLICK BUTTON INOPERATIONAL
		71A	HDD BOOT FAILURE	72A	REQUIRES 'SET UP' AT BOOTING			749	TRACKPAD SURFACE DAMAGED
		71B	FDD BOOT FAILURE	72X	OTHER 'FAULTY DATA PROCESSING' PROBLEM			74A	KEYBOARD KEY(S) DAMAGED
		71X	OTHER 'NO DATA PROCESSING' PROBLEM					74X	OTHER KEYBOARD/POINTING DEVICE PROBLEM
8	PRINT/COPY/SCAN	810	NO PRINT/COPY/SCAN OPERATION	820	ERRONEOUS PRINT/COPY/SCAN OPERATION	830	POOR PRINT QUALITY	840	NOISY PRINTING
		811	NOT PRINTING	821	PRINT IMAGE REVERSED (NEGATIVE/POSITIVE)	831	INCORRECT PRINTING POSITION	841	PRINTING NOISE LINES
		812	NO COMMUNICATION WITH PRINTER	822	IRREGULAR PAPER FEED	832	LOW PRINT CONTRAST	842	DIRTY PRINTING
		813	PAPER NOT LOADING	823	ERRONEOUS PRINT MODE SWITCHING	833	EXCESSIVE PRINT CONTRAST	843	UNPLEASANT SMELL (OZONE)
		814	NO PAPER FEED	824	COPY TOO DARK	834	BLURRED PRINT IMAGE	844	BLACK LINES/STRIPES IN FEED DIRECTION
		815	NO IMAGE FIXATION	825	COPY TOO BRIGHT	835	PRINT IMAGE NOT SHARP	845	WHITE LINES/STRIPES IN FEED DIRECTION
		816	NO DOCUMENT FEEDING	826	BLACK COPY	836	DOTS MISSING IN PRINT IMAGE	846	BLACK LINES/STRIPES ACROSS FEED DIRECTION
		817	SCANNER NOT WORKING	827	WHITE COPY	837	COLOUR STREAKING	847	WHITE LINES/STRIPES ACROSS FEED DIRECTION
		81X	OTHER 'NO PRINT/COPY/SCAN OPERATION' PROBLEM	828	POOR COLOUR LEVELS	838	NO COLOUR IN PART OF PICTURE		
				829	IRREGULAR DOCUMENT FEED	839	PRINT IMAGE/COPY INCOMPLETE		
				82A	FAULTY CORRECTION FUNCTION	83A	FAULTY CALIBRATION	84X	OTHER 'NOISY PRINTING' PROBLEM
				82B	POOR SCANNING QUALITY	83X	OTHER 'PRINT QUALITY' PROBLEM		
				82X	OTHER 'PRINT/COPY/SCAN OPERATION' PROBLEM				

(*1)

CAUTION

THE 'X' EXTENDED SYMPTOM CODES (*-**X) SHOULD ONLY BE USED TO INDICATE THAT A SUITABLE SYMPTOM DESCRIPTION IS NOT AVAILABLE IN THE CONCERNED SYMPTOM GROUP

BROWN GOODS
REV 03 - 2000/02

SYMPTOM CODE TABLE

EACEM IRIS

		5	UNSTABLE	6	RECORDING & PHYSICAL PROBLEMS	7	SPECIAL FUNCTIONS	8	OTHER CONDITIONS
1	GENERAL	150	REMOTE CONTROL PROBLEM	160	PHYSICAL DAMAGE	170	GENERAL FUNCTION PROBLEM	180	SPECIAL REQUIREMENTS
		151	NO REMOTE CONTROL OPERATION	161	DAMAGED/DEFORMED CABINET/PANEL	171	FAULTY CLOCK FUNCTION	181	TEST AND CHECK
		152	INCORRECT REMOTE CONTROL OPERATION	162	DAMAGED HANDLE/LID	172	FAULTY SLEEP FUNCTION	182	GENERAL OVERHAUL
		153	REMOTE CONTROL PROGRAMMING/ LEARNING MODE PROBLEM	163	DAMAGED CONTROL KNOB(S)/BUTTON(S)/KEYPAD	173	FAULTY TIMER PROGRAMMING	183	SYSTEM/FREQUENCY CONVERSION
				164	DAMAGED DOOR/COVER	174	FAULTY TIMER OPERATION	184	INITIAL SETUP/INSTALLATION REQUESTED
		154	POOR REMOTE CONTROL SENSITIVITY	165	DAMAGED SEAL	175	PROGRAMMING/USER ADJUSTMENT PROBLEM	185	MODIFICATION/CIRCUIT/INSTALLATION CHANGE
		15X	OTHER 'REMOTE CONTROL' PROBLEM	166	DAMAGED PLUG/SOCKET/TERMINAL/CONNECTOR	176	FAULTY RECORD MUTE OPERATION	186	WRONG PRODUCT IN CARTON
				167	DAMAGED LENS	177	FAULTY PROGRAMMED PLAYBACK OPERATION	187	ACCESSORY MISSING
				168	DAMAGED CARTRIDGE OR STYLUS	178	FAULTY MEMORY FUNCTION	188	UNABLE TO CONNECT PARTS/-TO ASSEMBLE
				169	DAMAGED ANTENNA	179	FAULTY INPUT SWITCHING	189	WRONG COLOUR
				16A	DAMAGED CRT OR VIEWFINDER/LCD DISPLAY	17A	FAULTY OUTPUT SWITCHING	18A	BATTERY MOUNTING PROBLEM
				16B	MISSING COMPONENT(S) OR ORNAMENTAL PARTS	17B	ELECTRIC SHOCK/STATIC DISCHARGE	18B	OTHER SPECIAL REQUIREMENTS
				16C	PRINTED MARKINGS ERASED/PEELED OFF	17C	FAULTY SEARCH FUNCTION (INDEX/VIEW/TITLE/CHAPTER/TRACK...)	18X	OTHER SPECIAL REQUIREMENTS
				16D	SET BURNING/SMITS SMOKE	17D	WRONG LANGUAGE/CHARACTER SET	18Z	SYMPTOM NOT AVAILABLE
				16E	EXTERNAL SURFACE DAMAGE (BUBBLING/PEELING/RUSTING/SCRATCHED)	17E	ERROR CODE APPEARS IN DISPLAY		
				16F	SMELL	17F	SWITCH NOT OPERATING		
				16G	WEAK/DAMAGED STAND	17G	PEDAL NOT OPERATING		
				16H	DAMAGED SPEAKER	17H	FAULTY STANDBY MODE		
				16J	SET GETS VERY HOT / PARTS MELTING	17J	FAULTY HIBERNATION MODE		
				16K	FOREIGN SUBSTANCE ON/IN UNIT	17K	NO AUDIBLE WARNING SIGNAL		
				16L	BURNING MARKS	17L	FAULTY OPERATION OF PARENTAL LOCK/KEYLOCK FUNCTION		
				16M	INTERNAL SURFACE DAMAGE (BUBBLING/PEELING/RUSTING/SCRATCHED)	17M	FAULTY MODE SWITCHING		
				16N	DAMAGED POWER CABLE	17N	MENU FUNCTION PROBLEM		
				16P	DAMAGED ACCESSORY	17X	OTHER 'GENERAL FUNCTION' PROBLEM		
				16R	DISCOLOURATION				
				16X	OTHER PHYSICAL DAMAGE				
2	COMMUNICATION	250	UNSTABLE RECEPTION/TRANSMISSION	260	TUNING PROBLEM	270	SPECIAL COMMUNICATION PROBLEM	280	SPECIAL RECEPTION PROBLEM
		251	TUNING DRIFT	261	MANUAL TUNING PROBLEM	271	FAULTY DIALLING	281	FAULTY STEREO RECEPTION
		252	FADING	262	AUTOMATIC TUNING PROBLEM	272	FAULTY CHANNEL SELECTION	282	FAULTY MAIN CHANNEL (A) FUNCTION
		253	INTERMITTENT LINE/LINE BREAKING OFF	263	INCORRECT TUNING	273	FAULTY AUTO-ANSWER OPERATION	283	FAULTY SUB-CHANNEL (B) FUNCTION
		254	NO OR UNSTABLE CONNECTION COMBINED WITH 'WEAK SIGNAL STRENGTH' INDICATION	264	TUNING MEMORY PROBLEM	274	FAULTY MESSAGE READ-OUT FUNCTION	284	FAULTY SSB RECEPTION
				26X	OTHER 'TUNING' PROBLEM	275	FAULTY AUTODIAL/REDIAL MEMORY	285	FAULTY RDS/VPS/PDC/XDS OPERATION
		25X	OTHER 'UNSTABLE RECEPTION/ TRANSMISSION' PROBLEM			276	FAULTY SPEECH PROCESSING	286	FAULTY TELETEXT/CLOSE CAPTION/EPG DECODER
						277	NO RINGING TONE		
						278	LOUD/WEAK RINGING TONE	287	FAULTY SATELLITE/RTTY RECEPTION
						279	MODEM STUCK OFF HOOK	288	FAULTY FAX OPERATION
						27A	FAX MODEM NOT RECOGNIZED BY SYSTEM	289	FAX DOES NOT RECOGNIZED BY SYSTEM
						27B	MODEM CAUSES PROBLEM WITH PHONE	28A	FAULTY CALL CHARGE DISPLAY
						27C	NO MODEM DIAL TONE	28B	FAULTY HANDS-FREE OPERATION
						27X	OTHER 'SPECIAL COMMUNICATION' PROBLEM	28C	SET LOCKED
								28X	OTHER 'SPECIAL RECEPTION' PROBLEM
3	PICTURE	350	UNSTABLE PICTURE	360	POOR PICTURE RECORDING	370	SPECIAL PICTURE FUNCTION PROBLEM	380	PICTURE DISPLAY/PICKUP PROBLEM
		351	SYNC PROBLEM	361	NO PICTURE RECORDING	371	EDITING PROBLEM	381	BURN MARK ON DISPLAY/PICKUP
		352	PICTURE PUMPING	362	NO ERASURE PROTECTION FOR VIDEO	372	FAULTY FADING/WIPER OPERATION	382	SCRATCH ON DISPLAY/PICKUP
		353	PICTURE JITTER	363	PREVIOUS VIDEO RECORDING NOT BEING ERASED	373	FAULTY NEGATIVE/POSITIVE SWITCHING FUNCTION	383	DUST/DIRT ON DISPLAY/PICKUP
		354	PICTURE SHAKING (HORIZONTAL OR VERTICAL)	364	UNWANTED ERASURE OF PICTURE	374	FAULTY SUPERIMPOSE/TELOP OPERATION	384	PHOSPHOR/PIXEL MISSING ON DISPLAY/PICKUP
		355	FLICKERING PICTURE	365	NO CAMERA RECORDING	375	FAULTY PICTURE IN PICTURE/DIGITAL PICTURE OPERATION	385	BRIGHT POINT(S) IN PHOSPHOR/PIXEL
		356	FLASHING PICTURE	366	ONLY ONE FIELD PER FRAME BEING RECORDED	376	FAULTY PICTURE TRANSMISSION	386	LINES ACROSS/DOWN IMAGE
		357	CYCLIC PICTURE MUTING	367	RECORDS ONLY A FEW PICTURES	377	FAULTY DIGITAL SHUTTER FUNCTION	387	OUT OF SPECS PIXEL DEFAULTS
		358	HEAD IMPACT ERROR CAUSING UNSTABLE PICTURE	36X	OTHER 'PICTURE RECORDING' PROBLEM	378	FAULTY GENLOCK FUNCTION	388	BACKGROUND BURNT IN
						379	FAULTY FLASH/STROBE FUNCTION	38X	OTHER 'PICTURE DISPLAY/PICKUP' PROBLEM
		359	VCR SKEW/H-SHIFT ERROR			37A	FAULTY DIGITAL PICTURE/ZOOMING FUNCTION		
		35A	FROZEN PICTURE			37B	FAULTY AUTO-EDIT FUNCTION		
		35B	JUMPING/REPEATING PICTURE			37C	FAULTY PICTURE STABILIZER FUNCTION		
		35X	OTHER 'UNSTABLE PICTURE' PROBLEM			37D	FAULTY PICTURE CAPTURE FUNCTION		
						37E	FAULTY SUBTITLING FUNCTION		
						37F	FAULTY VARIABLE SPEED PLAYBACK		
						37G	FAULTY VIEW-/MULTI-ANGLE SWITCHING		
						37H	FAULTY ASPECT RATIO SWITCHING		
						37J	THUMBNAIL- OR INDEX PICTURE PROBLEM		
						37K	NO BLANKING SCREEN		
						37X	OTHER 'SPECIAL PICTURE FUNCTION' PROBLEM		
4	COLOUR	450	UNSTABLE COLOUR	460	POOR COLOUR RECORDING	470	SPECIAL COLOUR FUNCTION PROBLEM	480	
		451	COLOUR FLASHING	461	NO COLOUR RECORDING	471	FAULTY AUTOMATIC WHITE BALANCE		
		452	HUE CONSTANTLY CHANGING	462	NOISY COLOUR RECORDING	472	FAULTY COLOUR EFFECTS FUNCTION		
		453	FLICKERING COLOUR	46X	OTHER 'COLOUR RECORDING' PROBLEM	47X	OTHER 'SPECIAL COLOUR FUNCTION' PROBLEM		
		454	COLOUR NOT LOCKED						
		45X	OTHER 'UNSTABLE COLOUR' PROBLEM						
5	AUDIO	550	UNSTABLE AUDIO	560	POOR AUDIO RECORDING	570	POOR SPECIAL AUDIO FUNCTION	580	STEREO/MULTI MODE OPERATION PROBLEM
		551	JUMPING OR REPEATING AUDIO	561	AUDIO NOT BEING RECORDED	571	FAULTY FADE OPERATION	581	NO STEREO OPERATION
		552	AUDIO PUMPING OR BREATHING	562	NO ERASURE PROTECTION FOR AUDIO	572	FAULTY ECHO OPERATION	582	POOR CHANNEL SEPARATION
		553	AUDIO DROPOUTS	563	PREVIOUS AUDIO RECORDING NOT BEING ERASED	573	FAULTY MIXING OPERATION	583	DIFFERENCE IN PHASE BETWEEN CHANNELS
		554	CYCLIC AUDIO MUTING	564	UNWANTED ERASURE OF AUDIO	574	FAULTY REPEAT MODE OPERATION		
		555	WOW AND FLUTTER	565	MESSAGE NOT BEING RECORDED	575	FAULTY AUDIO PROCESSING	584	PROBLEM WITH SURROUND SOUND MODE
		556	HOWLING/ACOUSTIC FEEDBACK	566	DISTORTED AUDIO RECORDING	576	FAULTY SYNC RECORDING OPERATION	585	PROBLEM WITH PCM AUDIO MODE
		557	ECHO IN SOUND	56X	OTHER 'AUDIO RECORDING' PROBLEM	577	FAULTY SOUND OPERATION	58X	OTHER 'STEREO/MULTI MODE' PROBLEM
		55X	OTHER 'UNSTABLE AUDIO' PROBLEM			578	FAULTY NOISE REDUCTION OPERATION		
						579	FAULTY AUDIO DUB FUNCTION		
						57A	FAULTY TITLE PROGRAMMING		
						57B	FAULTY MIC CONTROL		
						57C	FAULTY PITCH CONTROL		
						57X	OTHER 'SPECIAL AUDIO FUNCTION' PROBLEM		
6	MECHANISM	650	MECHANICAL INSTABILITY	660	DAMAGE TO MEDIA	670	MECHANICAL OPERATION PROBLEM	680	LENS PROBLEM
		651	UNEVEN FEET	661	TAPE GETS SCRATCHED	671	FAULTY START/STOP OPERATION	681	FOCUS PROBLEM
		652	FAULTY HINGE	662	DISC GETS SCRATCHED	672	FAULTY PAUSE OPERATION	682	ZOOM PROBLEM
		653	VIBRATING/JUMPING	663	TAPE GETS CHEWED/WRINKLED	673	FAULTY AUTOMATIC PROGRAM SEARCH	683	IRIS PROBLEM
		654	PARTS LOOSE	664	TAPE JAMMED OR BROKEN	674	FAULTY CUE/REVIEW MODE	684	MACRO PROBLEM
		655	DAMAGED WHEEL(S)	665	TAPE GETS CURLED	675	FAULTY SLOW MOTION OPERATION	68X	OTHER 'LENS' PROBLEM
		65X	OTHER 'MECHANICAL INSTABILITY' PROBLEM	666	SLACK TAPE	676	FAULTY HIGH-SPEED SCANNING MODE		
				667	TAPE STICKING	677	FAULTY SPEED COPY FUNCTION		
				66X	OTHER 'SOFTWARE DAMAGE' PROBLEM	678	FAULTY REPEAT OPERATION		
						679	FAULTY RECORD REVIEW MODE		
						67A	FAULTY AMS OPERATION		
						67B	AUTO-REVERSE MALFUNCTION		
						67C	FAULTY END DETECTION		
						67D	FAULTY DISC SIDE (A-B SELECT) SWITCHING		
						67X	OTHER 'MECHANICAL OPERATION' PROBLEM		
7	DATA PROCESSING	750	PERIPHERAL PROBLEM (NON-STORAGE)	760	DATA STORAGE PROBLEM	770	SPECIAL DATA PROCESSING FUNCTION PROBLEM	780	INTERFACE PROBLEM
		751	PERIPHERAL DOES NOT INITIALISE	761	FORMATTING PROBLEM	771	FAULTY SELF-DIAGNOSTIC MODE	781	USB INTERFACE PROBLEM
		752	COMMUNICATION FAILURE WITH PERIPHERAL	762	DATA ON STORAGE MEDIUM BEING LOST	772	FAULTY WORD PROCESSING FUNCTION	782	PARALLEL INTERFACE PROBLEM
		753	INTERNAL PERIPHERALS FAILURE	763	FRAME MEMORY PROBLEM	773	FAULTY GRAPHIC EDIT FUNCTION	783	SCSI INTERFACE PROBLEM
		754	EXTERNAL PERIPHERALS FAILURE

EACEM - SECTION CODES

COMMON	
ANT	ANTENNA SECTION
APR	SIGNAL PROCESSING (ANALOG)
BCH	BATTERY CHARGE
CLK	CLOCK/TIMER SECTION
CPA	COLOUR PROCESSING/ANALOG
CTR	CONTROL PANEL
DPR	SIGNAL PROCESSING (DIGITAL)
ERA	ERASE CIRCUIT
FLX	FLEXIBLE PRINTED CIRCUIT BOARD
HFS	HIGH FREQUENCY SECTION (RF)
IDS	INFORMATION DISPLAY SECTION
IFC	IF-CIRCUIT
ILN	i.LINK (IEEE1394) SECTION
INP	SIGNAL INPUT SECTION
IRD	INFRARED (IrDA) SECTION
MEM	MEMORY CIRCUIT
OUT	SIGNAL OUTPUT SECTION
PRG	PROGRAMMING SECTION
PRT	PROTECTION CIRCUIT
PSU	POWER SUPPLY
PWA	POWER AMP SECTION
REM	REMOTE CONTROL SECTION
RFU	BOOSTER,RF UNIT
SFT	SOFTWARE (TAPE, DISC, ETC.)
SNS	SENSOR UNIT
SVO	SERVO SECTION
SYS	SYSTEM CONTROL SECTION
TUN	TUNING SECTION
TXT	TEXT PROCESSING
SOUND-RELATED	
APA	AUDIO PROCESSING/ANALOG
APD	AUDIO PROCESSING/DIGITAL
CDC	CD CHANGER SECTION
CDS	CD SECTION
MDC	MD CHANGER SECTION
MDS	MINIDISC SECTION
MIC	MICROPHONE SECTION
PUD	PICK-UP DEVICE
SHD	STATIONARY HEAD(S)
SPK	SPEAKER
PICTURE-RELATED	
CAM	CAMERA CIRCUIT
CPD	COLOUR PROCESSING/DIGITAL
CRT	PICTURE TUBE
DFL	DEFLECTION CIRCUIT
DVD	DVD SECTION
FPK	FOCUS PACK
IMG	IMAGE DISPLAY UNIT

PICTURE-RELATED	
LCD	LCD SECTION
LMP	LAMP/FLASH SECTION
VPA	VIDEO PROCESSING/ANALOG
VPD	VIDEO PROCESSING/DIGITAL
VWF	VIEWFINDER
PC-RELATED	
FDD	FLOPPY DISC DRIVE
FMW	FIRMWARE
HDD	HARD DISC DRIVE
ISA	ISA SECTION
JST	JOYSTICK
KBD	KEYBOARD (SEPARATE)
MDM	MODEM SECTION
NIF	NETWORK INTERFACE
PAR	PARALLEL PORT
PCC	PC CARD
PCI	PCI SECTION
SCS	SCSI PORT
SER	SERIAL PORT
USB	USB PORT
MECHANICAL	
ARM	ARM MECHANISM
BZL	BEZEL
CBT	CABINET
CHA	CHASSIS
DDM	DISC DRIVE MECHANISM
EXC	EXTERNAL CONNECTOR
HCM	HEAD CARRIAGE MECHANISM
HOL	CASSETTE HOLDER
INC	INTERNAL CONNECTOR
LDG	LOADING MECHANISM
LNM	LENS MECHANISM
PFM	PAPER FEED MECHANISM
PIN	PINCH ROLLER/LEVER
PRI	PRINT BLOCK
RFM	RIBBON FEED MECHANISM
RHD	ROTARY HEAD(S)
SLD	SLED MECHANISM
SRS	SUPPLY REEL SECTION
STA	STATIC BLOCK
TDM	TAPE DRIVE MECHANISM
THR	THREADING MECHANISM
TNR	TENSION REGULATOR
TPT	TAPE PATH
TRS	TAKE-UP REEL SECTION
WIR	LEAD WIRE
XXX	CABINET/COSMETIC PARTS

EXAMPLE OF USE:

FLAG	SYMPTOM CODE	PART NO.	REF. NO.	SECTION	PCB	DEFECT CODE	REPAIR CODE	QTY
1	1412	11111111111111111111	R123....	TDM	YA22...	C1	Z1	..
.	3641	34567891XXXXXXXXXXXX	111.....					..

FLAG: INDICATES THE ONE MAJOR SYMPTOM/PART COMBINATION BY '1'

DEFECT CODES

MECHANICAL	
A	WORN OUT (OR GENERAL MECHANICAL DEFECT)
A1	MISOPERATING
B	DIRTY, CLOGGED
C	MECHANICALLY MISALIGNED
D	CUT, BROKEN
E	DEFORMED
F	SNAPPED
G	SCRATCHED, DENTED, SHARP EDGES
H	CRACKED, PEELED, CORRODED, MELTED
I	LOOSE/OFF/STRIPPED
J	SHAKY, UNSTABLE
K	LEAKING (MECHANICAL)
L	DRY (NO LUBRICANT)
M	FOREIGN OBJECT

ELECTRICAL	
N	DEFECTIVE ELECTRICAL COMPONENT/MODULE
O	BURNT, ARCING, MISSING PIXELS
P	ELECTRICALLY MISALIGNED/WRONG SETTING
Q	SHORT CIRCUIT
R	OPEN CIRCUIT
S	LEAKING (ELECTRICAL)
T	BAD CONTACT, CONNECTION
T1	BAD EARTH CONNECTION
U	OPEN PATTERN
V	CRACKED PRINTED CIRCUIT BOARD
W	COLD OR NO SOLDERING
X	BRIDGED SOLDERING
Y	WRONG COMPONENT/MODULE
Z	MISSING COMPONENT/MODULE
1	SOFTWARE PROBLEM
11	LOSING DATA FROM MEMORY
12	FAULTY PROGRAM SETTING/INSTALLATION
13	SOFTWARE DEFECTIVE OR INCOMPLETE
14	SOFTWARE SETUP PROBLEM
15	NO IDENTIFICATION / AUTHENTICATION OF PRODUCT OR USER
2	EXHAUSTED, LOW EMISSION
3	NO PROBLEM FOUND (SET WITHIN SPEC)
4	NO PROBLEM FOUND - CUSTOMER MISUNDERSTANDING
5	NO PROBLEM FOUND - LOCAL CONDITIONS
51	FAULTY MAINS VOLTAGE
6	UNABLE TO DIAGNOSE FAULT
7	INCORRECTLY WIRED/ASSEMBLED
81	INCORRECT EQUIPMENT CONNECTION
9	CUSTOMER MISUSE
93	UNAUTHORISED MODIFICATION

REPAIR CODES

A	REPLACEMENT
B	MECHANICAL ALIGNMENT
C	ELECTRICAL ALIGNMENT
D	RESOLDERING
D1	REFITTING, PUT BACK IN POSITION (CONNECTOR, TUBE...)
E	CLEANING
F	LUBRICATION
G	REPAIRED ELECTRICAL PARTS
H	REPAIRED MECHANICAL PARTS
I	MODIFICATION REQUESTED BY MANUFACTURER
J	REMOVED
K	ADDED
L	FUNCTIONAL CHECK
M	SPECIFICATION MEASUREMENT
N	MAINTENANCE
O	REFURBISHING, RECONDITIONING
P	PREVENTIVE PARTS REPLACEMENT
Q	PREVENTIVE ACTION WITHOUT PARTS REPLACEMENT
U	EXPLANATION FOR CUSTOMER
V	COST ESTIMATION REFUSED
W	COST ESTIMATION WITH PARTS
X	COST ESTIMATION WITHOUT PARTS
Y	RETURN WITHOUT REPAIR
Z	PRODUCT EXCHANGE
Z1	PRODUCT EXCHANGE (REPAIR TOO EXPENSIVE)
Z2	PRODUCT EXCHANGE (TOO MANY VISITS/REPAIRS)
Z3	PRODUCT EXCHANGE (PARTS NOT AVAILABLE)
Z4	PRODUCT EXCHANGE (IMPOSSIBLE TO REPAIR)
Z5	PRODUCT EXCHANGE (ON REQUEST OF RETAILER)
Z6	PRODUCT EXCHANGE (ON REQUEST OF MANUFACTURER)
1	SOFTWARE CORRECTION/RESET
2	SOFTWARE UPGRADE
3	PRODUCT UPGRADE (ON REQUEST)

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